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EMPOWERING TO CREATE SMART FUTURE THROUGH E-GOVERNANCE AND DIGITIZATION

Front Cover

International Conference
on

EMPOWERING TO CREATE SMART FUTURE THROUGH E-GOVERNANCE AND DIGITIZATION

"सशक्तिकरण"

Editors, New Delhi
Dr. Vikas Nath • Dr. Anjali Sharma
Dr. Shallu Singh • Dr. Navneet Gera
Dr. Ajay Sahni

Editors, Navi Mumbai
Dr. Anjali Kalse
Dr. Purvi Pujari

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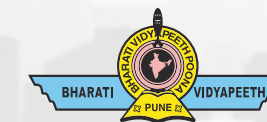SMT • AUTOMATION • SOLAR • ACADEMY

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Conference e-Proceedings

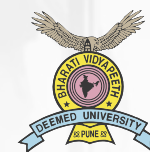# EMPOWERING TO CREATE SMART FUTURE THROUGH E-GOVERNANCE AND DIGITIZATION

"सशक्तिकरण"

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Hon'ble Dr. Patangrao Kadam
Founder, Bharati Vidyapeeth
Chancellor, Bharati Vidyapeeth
Deemed University, Pune

Message

It gives me immense pleasure to say that BVIMR, New Delhi is organizing the International Conference on the theme "Empowering to create smart future through E-Governance and Digitization".

The seeds of a digitally connected India were sown in the early 90's and 2000's and there has been a noticeable growth in the sphere of transforming the country with connectivity. We stand witness to some of the most monumental changes independent India has ever seen, in the form of Startup India, Make in India, Digital India. With an unprecedented mandate and a clear vision, the current government is pushing ahead the digitization initiative, which has the potential to transform the lives of citizens across the length and breadth of the country.

This conference aims at providing a rostrum that highlights the aspects of e-governance and digitization by appropriately aligning it to their broader business goals, thereby sculpting a smarter future. It is with humility that I welcome all academicians, research scholars, corporate, and students to present their papers at BVIMR, New Delhi, whose significant contributions make such conferences a success, and express my sincere gratitude to them on behalf of Bharati Vidyapeeth and Bharati Vidyapeeth University.

Dr. Patangrao Kadam

Hon'ble Prof. (Dr.) Shivajirao Kadam
Pro Chancellor, Bharati Vidyapeeth
Deemed University, Pune

Message

Digital-led experience aim to create a seamless experience across all interface points by leveraging cloud, automation, security etc. in making monolithic IT more agile, and more adaptable to user needs. The effects of digitization and increasing network density on society, leadership, and work is successfully paving a way for 'leadership excellence' and the 'future of work'. This conference invites you to share your thoughts and ideas in our discussion forum by enlightening each other on the grounds of empowerment to create a digital culture.

The Digital India vision provides the intensified impetus for further momentum and progress for e-Governance and would promote inclusive growth that covers electronic services, products, devices, manufacturing and job opportunities. Governance and services on demand will stress on integrating services across departments and jurisdictions and making services available in real time for both online and mobile platform.

I welcome everyone to the conference and I wish the Director, faculty and students all the best for the smooth conduction of the conference.

Dr. Shivajirao Kadam

Hon'ble Prof. (Dr.) Manikrao Salunkhe
Vice Chancellor, Bharati Vidyapeeth
Deemed University, Pune

Message

I take this opportunity to congratulate Bharati Vidyapeeth University Institute of Management and Research to organize International Conference on "Empowering to create smart future through E-Governance and Digitization". It seems the trend that has been catapulting across businesses, education, governance and many other industries to contribute towards the growth by adapting to digitized processes. We are in the era of Internet of Things which delivers a clear message to the economies to implement the change.

The real imperative in a world where 'everything' is digitized and governed not only implies the understanding of technology, but of the 'big picture' of what digital engagement means to the business, work and country as a whole. As digitization capabilities extend, every aspect of life is captured and stored in some digital form, and we move closer towards the networked interconnection of everyday objects. Let us work towards building a "future of success". This conference will help us to discuss the ways and means towards this dream.

I take this opportunity to invite all the corporates, academicians, research scholars and students to exchange their views on the various emerging areas for shaping the Indian economy by empowerment and I also convey my best wishes to the Director, faculty and students for making this event a grand success.

Dr. Manikrao Salunkhe

Hon'ble Dr. Vishwajeet Kadam
Secretary
Bharati Vidyapeeth
Pune

Message

It gives me immense pleasure to know that Bharati Vidyapeeth University Institute of Management and Research is organizing International Conference on "Empowering to create smart future through E-Governance and Digitization" on 19th and 20thJanuary, 2018.

The cornerstone for successful future is the digital vision behind it. This vision sanctions and enhances the experience of people by making lives simpler. Digitalization transformation is a journey of innovation that connects people, assets, products and services, enabling real time decisions.

We are already walking on the stepping stones ofDigital India wherein, it's time to share ideas that create a sharp-witted economy of success. I take this opportunity to invite all the corporates, academicians, research scholars and students to exchange their views on the various emerging areas for shaping the Indian economy by empowerment and I also convey my best wishes to the Director, faculty and students for making this event a grand success.
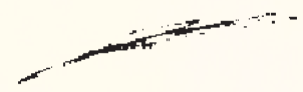
Dr. Vishwajeet Kadam

Dr. Vikas Nath
Director
Bharati Vidyapeeth
Educational Complex
New Delhi

Message

"I see technology as a means to empower and as a tool that bridges the distance between hope and opportunity."

- PM Narender Modi

For centuries, India has been known the world for a great many things; a vibrant culture, an exquisite cuisine, a soulful history. Prime Minister Narendra Modi's push to digitize the Indian economy has seen the introduction of Aadhaar — a unique identification number based on biometric information issued to residents of India — and attempts to reduce dependency on physical cash. Every step undertaken is a step towards creation of a future through sweeping economic reforms, initiatives to open up Indian markets to global business and investments in areas like digital technology and Smart Cities.

In the last two years we have seen our country's leadership dramatically accelerate digitization, benefitting all citizens. Today, India is recognized as the fastest growing economy in the world - and this is just the beginning. I believe that digitization and e-governance has the power to transform India into a true technology leader in the years to come.This conference provides a platform to invite great minds to build goals in bridging the digital divide in the country, increasing global competitiveness, fostering innovation and creating jobs.It is keeping with vision to create smarter future that we organize this conference themed "Empowering to create smart future through E-Governance and Digitization". I think that every student, academician, every research scholar, every corporate, every citizen can carve a future that is built on digital platform that contributes not only in terms of GDP growth and job creation, but also, in improving the overall quality of life of citizens, and creating better access to jobs and educational opportunities.

It is with this mind that our students and faculty organize this conference to invite smart minds to create smarter future! I commend and applaud their efforts to make the conference a success.

Dr. Vikas Nath

Acknowledgments

We feel immense pleasure to show our gratitude towards the Founder and Chancellor, Hon'ble Dr. Patang Rao Kadam, for his support and guidance at every step. We thank Hon'ble Dr. Shivaji Rao Kadam, Pro-Chancellor and Hon'ble Dr. Mainkrao Salunkhe, the Vice-Chancellor and Dr. Vishwajeet Kadam, Secretary, Bharati Vidyapeeth and Dr. Vilasrao Kadam, Complex Director, Bharati Vidyapeeth, Navi Mumbai for their contributions for the conference. Dr. Vikas Nath, Director, BVIMR and Former Director DY Patil, BVIMSR have constantly been the support for making this conference a success. Without their superior knowledge and experience, the conference would lack in quality of outcomes, and thus their support has been essential. We sincerely express our indebtedness and deep sense of gratitude to them for their invaluable guidance and many useful suggestions, without which this conference and book would not have taken the direction and shape as presented in this book.

Conveners, New Delhi
Dr. Vikas Nath • Dr. Anjali Sharma
Dr. Shallu Singh • Dr. Navneet Gera
Dr. Ajay Sahni

Conveners, Navi Mumbai
Dr. Anjali Kalse
Dr. Purvi Pujari

Contents

The Effect of Mortgage Digitalizationon Customer Relationship With Banks: A Comparison Between Traditional and Digitalized Model

Vaishali Kaushal*

Abstract

Financial institutions have undergone a major transformation. However, the mortgage industry after years of working on a traditional mode is in the utmost need of digitization. The benefits are multi-faceted like reduction in the turnaround time(TAT), reduction in cost, prior information on non-performing assets or frauds & most importantly increased customer delight. Whether a bank is focusing on new customer acquisition or customer retention, all end to end processes should be taken care by mortgage process digitization. Customer onboarding, processing of documents, cross functioning of all units should work in cohesion to ensure good business flow.

A customer while applying for a mortgage does not want to produce salary slips, bank statements and does not want to undergo all other redundant processes and red tape when the salary is coming in the same bank's account. Hence, here comes a need of complete business process transformation which includes reduction in number of steps, reduced documentation, redundancies in signing & dealing with the fraud cases. Already, there are many online options providing the pre-approved loans or sanction letters working on various algorithms.

The actual gap is where the bank credit underwriters may not trust the algorithms and may review the application individually & hence, there is no such platform wherein the documents can be collated, loan agreements be signed & the loan be disbursed. So, mortgage digitization in banks should lead to latest technology with the traditional wisdom.

This study tends to evaluate the current development, current trends of the mortgage industry and makes a comparison in-between the traditional mode and the digitized mode

Keywords: Banking Process Transformation, Red Tape, TAT, Customer Relationship

Introduction

According to Thummala(2017),The Indian banking has undergone rapid transformation in the last two decades, as consumer behavior is changing dynamically, it is posing a challenge to all the industries including banking industry. One of the most flourishing industry, the banking industry saw a major change when the "Digital transformation" occurred focusing on technology intensive solutions, manage enterprise risk, optimize the costing and are providing an enhanced customer experience.

However, there is a wide variation across the industry relating the technology agendas and implementation capabilities.Banks are working towards focusing on the core valuesencompassing the digital agenda and are accelerating innovation in a rapidly changing risk scenario by moving from cash to electronic modes of payment. New payments systems and small finance banks are some of the examples of innovative banking models which Indian Banking industry has witnessed(Thummala,2017)

Banks are taking help of business analytics, business intelligence to increase their profitability, however, coping with technology will be the key factors that drive transformation in banking industry. As the drive of all nations including India is going towards a cashless economy, it becomes of quite importance that all the banking functions including the lending, mortgages become digitized. (Thanika devi,2012)

According to Polatoglu and Ekin (2001), Internet banking is very attractive to banks and to consumers- set who display a higher level of technology adoption and are willing to and can comprehend not-so-simple banking products.Hence, the substantial growth of Internet banking is notjust limited to the US and Canadian banking industries as some parts of Europe and major parts of Asian markets have also experienced such impressive growth in Internet banking (Eurostat, 2008). This rapid growth has occurred as the customers have accepted this platform on the account of client retention, fast processing time, cost cutting. (Zuccaro and Savard, 2010).

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* Ph.D. Scholar, Delhi School of Management, Delhi Technological University, Delhi

As per BCG report of 2016, expertise over banking product, price and amount of the capital are the biggest strengths of Indian banking sector while exception cases, technology and service charges are the biggest weaknesses and approach of relationship management which was once a hit does not seem to be working that much now a times. There has been a penetration of online banking and mobile banking in the Indian banking industry, but the numbers are not huge. This lack of knowledge on how to use mobile banking, application based banking, complexity of information, lack of trust being some of the factors. (Thummala,2017)

The number of online customers in India is expected to grow from 60 million in 2015 to 173 million by 2020.To understand the weight of digitalization in banking, three factors need to be comprehended in a proper manner namely digital infrastructure, dynamic financial markets, and the products that people opt for Indian banks and even NBFCs need to inform the customers and give them -an easy to use and easy to transact platform. Adoption of technology by the banks is certainly the need of the hour but it would require the change in customer segmentation, integration with channel partners, cost of providing service.

As all the government programs, functions and schemes are revolving around the digitization, there is a hidden change being witnessed in the banking industry as well. India is becoming a cashless economy; hence, many businesses have started to use biometric technology, transaction simplification, automation, Enterprise resource planning and much more. Many banks are facing challenges w.r.t the self-employed class wherein the business was cash rich and not much was shown on the paper however with the digitization when the underwriter would prefer just the documents for a loan approval there would be a gap in an individual's net worth.

As the major function of the bank is depositing and lending, availability of alternative lending platforms also challenges banks. So, banks face competition from other firms in the areas of Investment management, market provisioning and capital raising which act as an entry barrier for new banking companies in India. Most Indian banks have been able to survive with the traditional model in which customer trust is a key driver. There are some banks which are reinventing their business model with more spend on digitization to stay ahead of the traditional banks. But the fierce competition will continue with the emergence of more financial service providers.

The Issues With Traditional Lending Methods

The journey to a digital model cannot have a short-term focus that capitalizes on quick wins. It goes beyond the use of new tools and techniques, methods of customer engagement and requires a 360 degrees change in the organization's methodologies and the ultimate delivery of products and services to the customer.

The pathway to digital model cannot have a myopic approach, it should be a well thought of approach, wherein all parameters should be derived from all teams involved in the mortgage process, third party agents, vendors, and the customer. It requires s holistic change which should result ultimately in the customer satisfaction and customer delight.

Consider the loan underwriting document collection process, borrowers, lenders,agents all connect to the bank through different channels which are not connected at all- by phone, email, SMS or other tools. So, the customers can not have a seamless experience.

As of now, there is a strong disconnect in betweentechnology and consumer-mortgage dynamics and hence, the mortgage industry is full of red tape and full of paper work.

1. Much dependence upon Loan Originating system (LOS) to address all needs:

   The whole mortgage system since many years is heavily reliant on the LOS, there have not really been much changes in LOS & so, with the changing, compliances, dynamics of the industry LOS has not been able to play its part.

2. Turnaround time(TAT):

   The turnaround time what it takes for the whole processing of the loan is much more. Also, the timeline is not defined as there is no defined time bracket followed in the industry for each of the process like credit, legal, technical etc.

3. Traditional model focuses on sourcing, channels rather than the processes and capabilities

   This limits the innovation capabilities across the organizations as the main focus till date of the industry is just to source business and hence, customer satisfaction and smooth disbursal of the loan is given a least priority hence, things have not been changed in the industry so far.

4. Mortgage Lenders have focused on components only

   Digital Documents focus on the paperless value rather than the data sensitivity approach. Disclosure portals, investigation portals, e-signing portals largely remain fragmented.

What is Mortgage Digitization?

As per Laura Agadoni, with a digital mortgage you meet a loan officer but not in person, the traditional way to get a mortgage involves meeting with a Loan officer and discuss your financial position and providing him with all the tax returns, bank statements, income statements signing all the KYCs.

However, with the digital mortgage you still meet the loan officer but not in person, so it is either over the phone or by the email. This is done by authorizing the lender to your financial and income information, so this process saves a lot of time, is cost and technology savvy and is convenient for everyone.

Characteristics of Mortgage Digitization

As per the cognizant report, the following characteristics best understand mortgage digitization:

Process/ Technology transformation:

Via Modern Technology, Digitization optimizes non-customer facing processes that is used to deliver a higher level of customer experience.

Deeper Insights Into Consumerism

Digitization helps the bank with a good S-T-P approach (Segmentation, targeting, positioning) particularly targeting customers with thoughtful, more appropriate, and timely offers.

Innovation

Digitization comes up with innovative processes. Even the products and the services undergo redesigning as per the segmentation, analysis, and customer research.

Personalization

Digitization provides a customized experience pertaining to convenience and consistency across channels and platforms.

Business Model Disruption:

Digitization is a business disrupter that promptstoadopt new business models with improved products, pricing and packaging.

Digitalization` Versus Digitization?

Digitization means converting data or information from analog to digital and digitalization refers to providing new revenues and opportunities with the help of digital technologies. (https://www.gartner.com/it-glossary/digitalization/)

Digitalization most often refers to enable or transforming the business operations with the help of digital technologies. It is obviously done with the help of digitized data. (https://www.i-scoop.eu/digitization-digitalization-digital-transformation-disruption/)

Mortgage Digitalization: Lender's Perspective

According to the Cognizant 20-20 insights report, a fully digitization based mortgage banking has multifold uses for a lender. The level of digital dependency varies across different banks etc. so as per that, the approach should be tailored.

- **Regulatory compliance:**Compliance risk is defined as the legal and regulatory risk, material loss, financial loss, or goodwillloss which a bank may suffer because of its failure to comply with rules and regulations, legal framework of an organization, and codes of conduct applicable to its banking activities.

    Compliance basically covers all matters which include observing proper standards of market conduct, treating customers fairly, managing interest conflicts and the deviations should be as per the law. **(https://www.bis.org/ publ/bcbs113.pdf)**

As digitalization comes into picture the manual intervention is very less and the automation would involve less cases where compliance is being neglected intentionally or unintentionally.

- **Customer experience:**Customer experience is a factor which is overshadowing all the factors of purchase and leads to customer satisfaction, customer retention and hence, improved sales. According to the Walker study, Customers 2020, the key brand differentiator would be customer experience which will overtake factors like product and pricing. **(https://www.walkerinfo.com/knowledge-center/featured-research-reports/customers2020-1)**

    Within mortgage lending, a digitized customer experience will result in a fast, easy to use platform and, a reliable one. Usually, while applying for a mortgage the TAT (turnaround time) taken is much more also, there is almost zero transparency in exactly knowing what is the file status whether the file is with legal team, technical team, or the underwriters. So, a transparent approach will give a boost to the customers as well and build a good level of trust within them.

- **Asset quality and risk:** Every year there are NPAs where the decisioning goes wrong and there are losses worth billions. Currently, there are Loan origination system(LOS) systems on which the banks are sustaining but they are not full proof. A deeper level of trust, integrity and transparency is required as it involves the money of investors.

  A digitized approach here would provide a better usage of the underwriters and better decision making as it would use the automated income ratios, collateral legal verification, property valuation and automated documents check.

- **Costing:** Usually, in a mortgage process, there are manual verification done wherein investigation officer visits the site to verify his office and residential address, then technical manager goes for the collateral valuation, sales personnel is required to meet his customer, so the underlying costing involved his huge. Also, there are multi levels of managers involved loan approval. More the manpower is involved more is the costing.

- **Operational Inefficiency:** For the banks and the Financial institutions, a lot of time is consumed in reworking, waiting time, unnecessary delays which makes the overall productivity low. This slow and directionless processing makes the borrower less enthusiastic about the mortgage. So, the lenders are struggling with outdated processes and system. (https://www.aba.com/Tools/Offers/Documents/Whitepaper-%20Five%20 Dimensions%20of%20 Digital%20 Commercial%20 Lending.pdf)

- **Every client is unique:** The lenders need to segregate the prospects and the customers to make a strong database. Each customer has its own set of characteristics which make them unique (the likes, the product preference, the risk profile) and hence, banks can make different strategies to satisfy each set of customers.

Digitization requires moving away from people-based processes to digital processes. Once the bar is raised to another level, processes are automated, and it only reduces processing times and costs. The improvements realized through digitization.

Mortgage Digitalization: A Customer's Perspective

A customer while applying for a loan, seeks an unparalleled experience and he has in mind is a dream home, or a dream project. And then, he comes across the decisive moment where he encounters different promises, different platforms of mortgages, numerous paper work, non-ending era of signatures etc.

1. Digital mortgage is fast

   Typically, it takes weeks to approve or deny a mortgage, but, with the digital mortgage the decisioning could be done in a matter of minutes, hours or possible in a few days. And this directly implies the relation wherein you could miss out or get the home you have zeroed down to buy.

2. Digital Mortgage is Simple

   Gathering of the documents, signing across bundles of papersand then, again getting more bunch as per the legal/ underwriters team is a tedious process. It makes the process more complex and where the patience of the customers gives up.

   In case of digital mortgages, in case the account statements or documents are needed the financier can auto collect them and there is no need of signatures as they are automated copies.

3. Digital mortgage possesses high level of transparency

   Digital mortgages allow the customers to check the status of their loan applications any time, they can log on to their loan application and check whether the file is with the underwriter, legal or field investigation team. Also, in case any additional document is required they can check that and do the needful which saves time and effort.

4. Customer has a lot more choices

   In a digital mortgage, the internet becomes like a market place wherein the customer has a good set of banks, NBFCs to choose from depending on the priority of the customer be it service, rate of interest, likeability of a bank/NBFC.

5. Saving money by offers and schemes

   a customer while applying loan online might come across various offers such as a lower interest rate, lower fees, or more flexible terms due to the online competition. Also, there can be no penalty no closing costs offers due to market transparency online, a customer is more likely to be benefited.

A Comparative Study of Traditional Model Versus Digitalized Model

A Digital Solution enables multi interfaces like phone, web, App etc. It is unified to enable collaborations amongst all three primary value enablers-borrower, third party vendors and the back office When a fully interconnected interface delivers an integrated mortgage solution it results in apex level of customer experience, drives the costs down and increase in the efficiency.

A traditional model, on the other end is dependent on all sort of manual work and rely on redundant data adding risks and unnecessary delays which ultimately leads to customer dissatisfaction, risks of bad debt and the feeling of getting betrayed.

The traditional model is always risk averse and has a slower approach. As it sees the end vision at last, the decisioning becomes more complex, as the inter-departmental interactions are low, there is achance of communication not being done properly ultimately leading to bad decision making on the underwriter part. The focus is on the process, customer and the product design are of the least concern. Also, as there is a hierarchy being followed so, the decisioning is re evaluated by all managers involved and hence, conclusion is made.

Three primary value enablers within the digital model are as follows:

Borrower tie up: The borrower collaboration aims to enhance an end-to-end customer experience via a singular solution set. A common user interface design enables rapid changes and consistent experience regardless of engagement mode (web, mobile, tablet, etc.)

With the borrower tie up, following activities are added in the overall functionality:

- Eligibility
- Pricing.
- Application.
- Credit.
- Disclosure.
- Income and assets.
- Uploading documents.
- Scheduling appraisal.
- Reviewing settlements.
- Statusupdating
- Information collating.
- E-signatures

Third-party vendors tie-up: The third-party collaboration is focused to expansion of vendor capabilities from product ordering, packaging improvement, expediting the communication, and delivering within the Stipulated time. This provides single solution set rather than a collection of point solutions, such as closing docs, e-signing, e-recording, basic order management, etc. as core components.

Functionalities integrated within the third-party vendor tie upoften include the following:

- Vendor calendar
- Vendor profile management.
- Delegation of document
- Pricing
- Self-servicing

Digitalization in back office: The digital back office provides the bank or the NBFC with deeper and important metadata andrelated tools by:

- **Extending the document lifecycle upstream.** Most document lifecycles begin from collection of the documents as per the check list rather than at the point the specific document need was identified. Mostly no lender has a clarity while processing of the documents received, documents redundant and documents outstanding.

- **Extending a deeper level of document classification:** This is done in order o enable automation and minimize the financial and decisional risk. This can be done with the help of coding in Metadata, this all will result in processing accuracy and minimal risk**.**

- **An integrated framework which upholds the relationship between specific documents,conditions of loan w.r.t the underwriter and activity:** This is the exact area where lenders should bridge the gap. Successful functionality would enable the required automation and ensures compliance.

- **Having deeper insights than simply developing a "virtual loan file".":** Digitalization should enable a deeper and value-added insights of the data establishing relationships, linking data with the loan applications to complete calculations such as Loan to value (L.T.V), debt-income ratio rather than just collating & saving the documents.

Tabular Comparison of Traditional Model Versus Digitalized Model

	TRADITIONAL MODEL	DIGITALIZED MODEL
CHANGE CONSIDERATIONS	FROM	TO
ULTIMATE OUTCOME	END VISION AT FIRST	THE VISION EVOLVES AS PER STAGE
FOCUS	PROCESS CENTRIC	CUSTOMER CENTRIC
SPEED	SLOW	FAST
INTERDEPARTMENTAL RELATIONS	SILOED DEPARTMENTS	SMOOTH CROSS FUNCTIONING
COMPANY CULTURE	RISK AVERSE AND SLOW APPROACH	MEASURED RISK
CUSTOMER INTERACTION	FACE TO FACE	NO MEETING REQUIRED
TRANSPARENCY	LESS	MORE
RECEIVING DOCUMENTS AND EXTERNAL DATA	LIMITED VALUE AND DATA CAPTURED	DEEPER DATA CAPTURED ENABLES AUTOMATION AND DEEPER TRANSPARENCY INTO DECISIONS
REVIEW PROCESS	REQUIRED	NOT REQUIRED
CUSTOMER EXPERIENCE	NOT GOOD	GOOD
OPERATIONAL EFFICIENCY	LOW	HIGH
UNDERWRITER DECISION	CONCLUSION TO BE RE EVALUATED	HIGHLY EXPEDITED, CLEAR, AND ACCURATE
PAPER WORK	MORE	LESS
COSTING	MORE	LESS
ASSET RISK	MORE	LESS
RECORDS MAINTAINING	TOUGH (MANUALLY SCANNING AND SAVE EACH DOC)	EASY AS INCULCATED IN THE PROCESS ITSELF
TAT	MORE	LESS

Challenges in Digitalization

When planning to undergo for a mortgage digitization process, organizations should consider the following challenges:

- **Cost of Technology:** A prior budget allocation is very important while planning to incorporate digitization as their will be changes in the digital process flow, strategy and how to enable technology so that is the best fit for the goal achievement with the optimized costs.

- **Organizational changes:** Process improvement usually results in the culture change of an organization as the processes change, the dynamics of the work changes due to the work load changes in the employees, so, aligning the current staff as per their competencies and work experience becomes very important.

- **Vendor/ Support systems Digital alignment:**Issues related to third-party resources, vendors, Human resources teams must be aligned well with the vendors support system. Also, the new processes and the changes in the systems must be well communicated to them to avoid any loss of business or mistakes.

- **High data security**: Data security is of utmost importance even after digitizationhas been done as the whole data of legal, technical, valuation, customers identification reports are connectedwhich becomes sensitive data,so the organization should strategize accordingly.

Recent Trends in Banking Process Digitalization

As per the Infosys 2014 blog on digital transformation, some of the trends gaining traction in digitalization in mortgages include:

1. Document Verification

Loan processing includes verification of the documents using various online availablesoftware's, this is a crucial factor that determine the turnaround time in a mortgage.The document verification process should be less time consuming and not lengthy as this process is a part of the early process, and, if in the beginning the customers forms the impression of the process being slow. Also, the process should be full proof as the frauds are usually caught in this frame of theprocess.

2. Paperless Mortgage

Mortgage is synonymous with paper, from disclosures to closing all the paper work is quite intensive. In the mortgage industry, once a customer opts for a mortgage he has to provide initials on dozens of papers, lots of documents are collected,photocopies are made again initials are required.so, the banks have started realizing the benefits they will reap from a paperless mortgage.

Not only it will be environment friendly, cost effective, it will save a lot of time and effort. So, the key lies in establishing a common platform in-between internal and external stakeholder.

3. Mobility

From personal system to laptops to ipad to mobiles the journey has been dynamic, and it is now understood that mobile devices have the biggest influence as compared to any other technology. The penetration level of mobiles is the highest.

Mobile apps can provide the instant notifications in case any document is required, or any set of initials is required on a document, so not only it will save a lot of time but play an important role in customer's convenience. Quicker loans can offer mobile apps to enable a customer to apply for a mortgage, scan mortgage documents and even close a loan.

4. Interfaces With Third-Party Applications

In a traditional LOS, interface with third party applications is quite low. So, the ability to gauge the credit risk and to provide the decisioning was minimal, but now a days LOS has an interface with credit team and underwriters.

In such a platform where there are more connected applications hence there is more data and information and hence, there are less chances of fraud.

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Digital Transformation and Corporate Governance in India

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Abstract

In recent years, corporate governance has become a primary focus and matter of concern for the corporation around the world. Corporate governance generally considered as a system that focuses on how the corporations are strategically directed as well as controlled. It is the system that concerns about the responsibilities and relationships among various participants of the companies. This paper mainly focused on Indian corporate regulatory frameworks and examines the relationship between digital transformation and corporate governance. The related existing corporate governance regulatory frameworks are compared to understand the implication and cascading effect of digital transformation in India. The paper finds that digital drive is gradually emerged and integrates into corporate governance system. Digital transformation enhances better, faster and less costly way of communication with investors and vice versa, which increases the cost-benefit of the company. In India, recently undertook many reforms and other measures on corporate governance, and observed the need for promoting the digital drive to strengthen the governance mechanisms and practices. Cybersecurity has become the major challenges and obstacles on digital transformation. The paper suggests that for better corporate governance practices, the stringent cybersecurity policies and regulations are necessary to establish at the highest level.

***Keywords:** Corporate Governance, Digital Transformation, Regulatory Frameworks, Cybersecurity.*

Introduction

In recent years, corporate governance has become a primary focus and matter of concern for the corporation around the world. Late 20th and early 21st centuries witnessed financial crisis in East Asia and many high-profile corporate scandals and collapses in the US especially Enron debacle in 2002, then gradually the corporate governance is emerging as an important issues particularly in developing countries (Dbe, 2003; Hopt, 2003; Monks & Minow, 2008; Tricker, 2009). As a response to crises, major corporate governance reforms took place in most of the developed and developing countries. The new corporate governance codes and new Companies laws were introduced and the regulatory continuously authorities promote better corporate regulation to avoid corporate fallout and crisis(Black et al., 2001; Monks & Minow, 2008; Afsharipour, 2009; Tricker, 2009; Claessens &Yurtoglu, 2013). After such corporate disasters struck, the corporate governance adheres to the economic development and well-being of the company. Well-govern companies acquire better opportunities for higher investment and enhance the economic development of the company (Shleifer&Vishny, 1997; Khanna&Palepu, 2000; Claessens, 2006; Tricker, 2009; Bebchuk&Weisbach, 2010; Hermalin&Weisbach, 2012; Claessens&Yurtoglu, 2013), better protection of shareholders interest and right especially minority shareholders and others stakeholders (Shleifer&Vishny, 1997; La Porta et al., 2000; Aguilera & Jackson, 2003; Daily et al., 2003; Klapper& Love, 2004). Adoption of good corporate governance practices enhances long-term wealth creation and sustainability that leads to the well-being of the corporation (Lazonick&O'sullivan, 2000; Kirkpatrick, 2009; Kocmanová et al., 2011; Lipton et al., 2016).

The good relationship between company boards, the shareholders, employees and other stakeholders of the company is one of the core issues of corporate governance. (Monks& Minow, 1995; CalPERS,1999; OECD, 2004; Tricker, 2009). Improving the lines of digital communication provides alternative methods to strengthen the better relations and engagement with shareholders and stakeholders. It enables the company to communicate genuinely to all the respective shareholders. Digital transformation creates faster, cheaper and reliable means to access information about the company. The SOX Act of 2002 maintained the importance of shareholder relations by demanding greater corporate transparency, compliance and improved financial disclosure, moreover, the company boards holds the responsibility for providing necessary financial reports (Sarbanes, 2002; Jain &Rezaee, 2006; Tricker, 2009). The recent transformation of digital technology changes the setting of business and corporate governance landscape across the globe. The electronic communications help company to exchange better information with the shareholder and stakeholder, enhance shareholder participation, and facilitate cross-border business activities and investment (Armour et al., 2016). In the United States, the shareholder meetings with e-facilities, e-voting and webcast become prominent (Chauvin et al., 2016). In India, the new Companies Act prescribes to the listed company to provide the facility of electronic voting to shareholders during meeting proceedings; however,

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the webcast is not compulsory. The Kotak committee recommended mandatory on E-voting as well as live one-way webcasts of all shareholder meetings of the listed company in India (Kotak Committee, 2017). The change of new technologies models of behaviour influence the present activities and the economy. And further digitalized economy has influenced on corporate governance setting (Jourová, 2016).

The organisational setting and processes improved with the innovation of latest digital and telecommunications development, earlier it focussed more on products innovation of the firms(OECD, 2017). The digital reforms and its innovation required sound corporate governance and financial system which provides a significant change for defining the quantitative and qualitative of the company growth (Tylecote, 2007). Many scholars have focussed technology innovation on corporate governance in the lens of resource allocation in economic performance and development (O'Sullivan, 2000; Tylecote, 2007; Belloc, 2010; Lazonick, 2006, 2017). Bringing technology and innovation into the boardroom reflects a positive impact on top management process in their business strategic decisions making (Tschirky, 2004), with digital transformation the company boards effectively able to manage and develop underlying opportunities task and evaluate the challenges of uncertainties risk(Durand et al., 2004). Like it or not, the digital drive is here. The Board members need to get assimilate and recognize the significant impact of fundamentals digital transformation in the business setting. Those who adopt the digital drive into boardroom will take the lead (Charan, 2017). The digital transformation promotes transparency and provides better regulations and laws enforcement particularly protection of shareholders' rights and interest of the companies (Shleifer&Vishny, 1997; La Porta et al., 2000; Tricker, 2009) and strong shareholder protection is associated with effective governance (Fernando, 2012). The policymaker focuses on the digital change in regulatory setting to further strengthen its regulation and implementation of the guidelines, Klapper & Love (2004) suggested in poor legal domains the firms have to compensate partly to create better shareholder protection and established the good corporate governance practices.

This paper mainly focused on Indian corporate regulatory frameworks, to examine the relationship between digital transformation and corporate governance.The related existing corporate governance regulatory frameworks are compared to realize the implication and cascading effect of digital transformation in India.The existing corporate governance frameworks and regulations, includes the Companies Act of 2013, SEBI (Listing Obligations and Disclosure Requirements Regulations 2015, and SEBI Kotak Committee on Corporate Governance 2017. Since the digital transformation is a recent phenomenon and there are less empirical evidence on how it effectively balances the corporate governance setting. But the general understanding is that the technology innovation will ease the burden of major physical works of the company especially in the matters of corporate governance practices. This paper focuses on general beliefs that technology innovation provides more effective communication strategies as well as building stronger relationship and engagement with shareholders. Effective communication and timely information with shareholders and stakeholders are one of the fundamental principles of board's role which demonstrates the accountability and transparency (Tricker, 2009).

The structure of this paper is as follows. Part 1 describesbrief relevance aspect of corporate governance and digital transformation and outlines the approach of digital transformation to strengthen corporate governance practices. Part 2 states the definitions of digital transformation and corporate governance, and familiarizes the concepts of both the terms and its relations. Part 3 compares corporate governance regulatory framework pertinent to digitalization outlook and further examines the cascading effect of digital transformation on corporate governance. Part 4 discusses challenges of digital transformation and general implication on corporate governances and Part 5 concludes the paper.

The Definitions of Digital Transformation and Corporate Governance

Digital Transformation

To define the digital transformation, first, we need to understand the concept of digitization and digitalization. Frequently both the terms are mutually used in literature perspectives and closely related to theoretical basis (Brennen & Kreiss, 2014). But the setting of these two terms has the underlying distinct characters and analytical significance between them(Brennen & Kreiss, 2014, 2016; Miglani, 2017).

The scholars use the term digitization and digitalization in different perspectives from basic computer process to business and social process. Digitization, it is referring *"to the technical process of converting streams of analog information into digital bits of 1s and 0s with discrete and discontinuous values"* (Brennen & Kreiss, 2014; Brennen & Kreiss, 2016). According to Davenport(2014) digitization means, *"taking manual or offline business processes and converting them to online, networked, computer-supported processes."* And digitalization, European Commission, report on digitalisation in company law, defines as *"the representation of communication in writing or sound by electronic means and the concept thus concerns electronic communication including the transmission of information and the storage of such communication electronically and electronic access and retrieval from such storage"* (Armour et al., 2016). According to Brennen & Kreiss (2016) digitalization is defined as *"the way many domains of social life are restructured around digital communication and media infrastructures."*

Digital transformation cannot take place without digitization and digitalization (Ziegler, 2017). Digital transformation in business perspective, CIO (2017) defines as *"the integration of digital technology into all areas of a business resulting in fundamental changes to how businesses operate and how they deliver value to customers."* According to (Newman,

2017) digital transformation is described as "*the process by which a company forms a strategy to implement technology to improve business and meet the ever changing demands of the consumer.*"Rashid (2017) deals on operational dimension of digital transformation and states as "*when businesses and the way they operate shift from their traditional mode of operation and management to the modern and technology oriented ways of operation.*" And in social perspective the digital transformation isreferred to as"*the changes associated with the application of digital technology in all aspects of human society*" (Parviainen et al., 2017).The process starts from digitization to digitalization, where data is easily accessible for use across various activities. The outcome of digital transformation is the integration of both digitized data and digitalized applications process with their unique character devising into new business operation.

Corporate Governance

Definition of corporate governance differs from authority to authority as well as from author to author. The well-recognized definition provided by Cadbury (1992) and defines as "*Corporate governance is the system by which companies are directed and controlled. The boards of directors are responsible for the governance of their companies. The shareholders' role in governance is to appoint the directors and the auditors and to satisfy themselves that an appropriate governance structure is in place.*" Furthermore a similar definition prescribes by the Organisation for Economic Co-operation and Development (OECD) which defines as, "*Corporate governance is about the rules and practices that govern the relationship between the managers and shareholders of corporations, as well as stakeholders like employee and creditors – contributes to growth and stability to underpinning market confidence, financial market integrity and economic efficiency*" (OECD, 2004).

The corporate governance and digital transformation become complementary since digital transformation increases the efficiency of companies operation and controlling the system in real-time. The digital innovationhelps the companies for better faster and reliable communication with investors and vice versa.For both the parties, it is easier to exchange or correct the information as well as send the information to far away distance in real-time. The investor's participation in the decisionmaking, better engagement with investors and other related communications to all the investors, the digital drive enables the company to execute the process effectively(Armour et al., 2016). The digital transformation change the setting of organisation and its departments by maintaining the documents in a digitised form and further digitalises the application which is easily accessible and can evaluate quickly (Miglani, 2017).

Digital Transformation and Corporate Governance in India

Corporate governance generally considered as a system that focuses on how the corporations are strategically directed as well as controlled. It is the system that concerns the responsibilities and relationships among various participants of the companies (Cadbury, 1992; Demb&Neubauer, 1992; Monks &Minow, 1995; OECD, 2004; Tricker, 2009). A different participant includes company boards, managers and other employees, investors, regulators, customers, and stakeholders. The board responsibilities may not only focused on economic and firms' performance but have fiduciary obligation to act as stewards of the shareholders' interest (Donaldson & Davis, 1991; Tricker, 2009). The performance of the board is measured by acquiring better information, maintaining a sound relationship with various participants and improving risk management (Lipton &Lorsch, 1992; Lorsch et al., 2009). In matters of accountability and transparency the boards must provide effective communication and timely information with shareholders and stakeholders (Tricker, 2009). And when engagement with shareholder take place, the board will make sure that all the discussion with the shareholders must be accounted and satisfactory (Council, 2012). The shareholder relations have become paramount, and influence of shareholders to the company becomes more effective than ever(Gregory et al., 2017).

The digital transformation is a recent ongoing phenomenon and has become imperative for all corporations (Newman, 2017; Rashid, 2017). The technology innovation is focussing more on production and operational efficiency, available information and other managerial skills in the lower level of the companies. Recently the digital transformation has become a matter of concern at the top-level of companies, especially in the boardroom. The effect of new digital drive is transforming from the old conventional system of operation and management to the present new modelof digital-oriented techniques of process and change the company's culture and image (Newman, 2017; Rashid, 2017). Companies have increased the frequency of engaging the major institutional investors and attending their interests and concerns, generally from a governance perspective. Recently the companies started engaging with shareholders nearly throughout the year; otherwise, the engagement happened only during the annual general meeting. There are some reasons behind that companies need to engage with shareholders, including the initiative account on the shareholder advisory vote for executive compensation, an increase on hedge fund activism; proxy advisory, and shareholder expectations (Gregory et al., 2017). The digital drive will make the companies' board give information and communication to all the shareholders across the borders in real-time.

In India, the economic liberalization reforms in 1991 have brought huge changes to information technology sector. The reforms also transformed the corporate governance system and its regulation. In 1992, Securities and Exchange Board of India was created as the regulator of securities markets and subsequently, the reforms on securities market improve the corporate governance regulation (Varottil, 2010). The information technology sector in India has developed world-class technology and attracts huge investment around the world. In 2012, the government of India took a path-breaking project

'MCA21' implemented by Ministry of Company Affairs. The initiative of MCA 21 is an electronic governance approach. This initiative focussed to integrate the Companies Act of 1956 and 2013 as well as LLP Act 2008 or Limited Liability Partnership, to digitalize the compliance with the legal requirements and proactive enforcement. It helps the business professional to meet their statutory obligations. The MCA21 pursues a uniform digital transformation across the country that develops the business professionals to register a company and file statutory documents online, digital access on public documents, handling faster and effective on public grievances, ease of registration and verification of charges, effective digitalized compliance on legal requirement with the relevant laws and corporate governance, and facilitates the MCA employees proactively to deliver best of breed services. Recently, the government has taken another big reform on digital transformation, the 'digital India' 2015. It focuses on empowering society and knowledge economy through digital transformation. The digital India initiative promotes the world-class digital infrastructure and communication, integrating the government services digitally and enhances the universal digital literacy. International Monetary Fund studies the current digital transformation in India, use of digital technology and digital records in public administration on financial inclusion and biometrics. The unique initiative taken by the government of India bring attention to many countries, which focussing an 'exciting' direction of digital transformation that can be a learning experience for all (PTI, 2017).

The continuous reforms initiated by regulators and institutional body which strengthened the corporate governance system in India. It covers a comprehensive range of different constituents and issues for good governance includes board structure, board accountability and responsibilities, protection of shareholder rights and interests especially minority shareholders, disclosures and transparency, and effective functioning of financial market and institution (Sarkar&Sarkar, 2012). The year 2013 witnessed the new paradigm shift and watershed moment in India corporate governance landscape, new Companies Act, 2013 was enacted, and further strengthened for major ameliorate the Corporate Governance standards for all companies. In 2014, SEBI revised its Listing Agreement of Clause 49, to bring into line with new Companies Act related to corporate governance provisions. It focussed to adopt the better corporate governance regulation and to reflect the regulatory framework against international standards particularly the recommendations of the OECD Principles.And in 2015, SEBI further regulates its listing rules, that is, the listing obligations and disclosure requirements, which broaden the prerequisite of compliance on disclosure and other corporate governance aspects.In mid-2017, SEBI set up the Kotak committee on corporate governance, the committee emphasized on corporate governance standards of Indian firms.

Table 1: Outline the latest development and issues relating to digital transformations in company law and other regulatory frameworks in India.

1. Shareholders Engagement	
Generally the companies engage with shareholders at the annual general meeting	
Companies Act, 2013	Introduced the electronic voting and postal ballot facilities
SEBI(LODR) Regulations, 2015	Mandatory on remote e-voting facility in respect of all shareholder resolutions
Kotak Committee recommendation, 2017	Recommended e-voting facility with different feature as well as one-way live webcast of the recording of all shareholder meetings
	2. Shareholders Information
	2.1. Disclosures on Website
Companies Act, 2013	a)A special resolution passed by the company on unutilised amount raised money from public through prospectus.b) The Unpaid Dividend Account, the names, addresses to be paid to each personc) the Corporate Social Responsibility Policy for the companyd) the financial statements including consolidated financial statementse) Manner of selection of independent directors and maintenance of databank of independent directorsf) the Board's report
SEBI(LODR) Regulations, 2015	**SEBI (LODR) Regulation 46**a) details of its businessb) terms and conditions of appointment of independent directors;c) composition of various board committees;d) code of conduct of boards senior management personnel;e) details of formation of Whistle Blower policy;f) making payments to non-executive directors criteria, if the same has not been disclosed in annual report;g) related party transactions policy;h) determining 'material' subsidiaries policy;i) details of adaptation programmes instructed to independent directors;j) details of email address for grievance redressal and other relevant documents;k) contact information of the entitled officials of the listed entity who are responsible for assisting and handling investor grievances;l) financial information including full copy of the annual report including balance sheet, profit and loss account, directors report, corporate governance report;m) shareholding pattern;n) the information, report, notices, call letters, circulars, proceedings, regarding non-convertible redeemable preference shares or non-convertible debt securities;o) details of agreements pass in with the media companies and/or their associates;p) list of analyst or institutional investor meet and presentations prepared by the listed;q) company to analysts or institutional investors simultaneously with submission to stock exchange;r) new name and the old name of the listed entity for a continuous period of one year, from the date of the last name change;s) The listed company must make certain that the

	contents of the website are correct;t) The listed company must update any change in the content of its website within two working days from the date of such change in content;
Kotak Committee recommendation, 2017	All the information mandated under Regulation 46 of SEBI LODR Regulations, the companies must maintain a separate section for investors, to ensure ease of availability and access of relevant information in one place to investors and regulators alike.
2.2. Submission of Annual Reports	
Companies Act, 2013	Through electronic mode, the financial statements for listed companies now can send altogether either by emailing or dispatch of physical copies to such members (holding demat securities) with the depository for communication purposes.
SEBI(LODR) Regulations, 2015	In compliance with the report on Corporate Governance provides and disclosed all the details information on the material related party transaction of the companies. The disclosure of related party transaction produces quarterly. And the policy regarding related party transactions must disclose in company's Annual Report with web link as well as on its website
Kotak Committee recommendation, 2017	The copy of the annual report which is sent to the shareholders including with the notice of the annual general meeting is required to be submitted to the stock exchange.In the event any corrections to any section of the annual report approved by shareholders and then the revised copy (with full information of an explanation for the changes so approved) to be sent within 48 hours after the annual general meeting.
3. E-voting and Webcast of Proceedings of the Meeting	
Companies Act, 2013	Mandatory for a listed company to provide e-voting facility to shareholders and such e-voting is permitted up to 5 p.m. one day prior to the general meeting. However on meeting proceedings to the webcast is not mandatory.
SEBI(LODR) Regulations, 2015	Mandatory on providing a remote e-voting facility in respect of all shareholder resolutions and along with the voting results need to be submitted within 48 hours of the conclusion of the general meeting.
Kotak Committee recommendation, 2017	On the day of the general meeting, the E-voting to be kept open till midnight (i.e. 11:59 p.m.). The modification of votes cast through e-voting may continue, even though there is restriction in the existing requirement. To provide one-way live webcast of the proceedings of all shareholder meetings.
4. Information Technology Committee	
Companies Act, 2013	No specific provisions
SEBI(LODR) Regulations, 2015	No specific provisions
Kotak Committee recommendation, 2017	The listed companies to constitute an information technology committee which, in addition to the risk management committee, to focus on digital and other technological aspects.
5. Stock Exchanges Annual Compliances	
Companies Act, 2013	Compliance with stock exchange(s), the SEBI (LODR) Regulations, 2015 has widely covered all the requirements
SEBI(LODR) Regulations, 2015	Under Listing Regulations the Listed company have to file the reports, statements, documents, filings and any other information with the recognised stock exchange(s) on the electronic platform as specified by the Board or the recognised stock exchange(s). the mandatory for filing of various information with the exchange in electronic mode includes:a) Compliance Certificate certifying maintaining physical & electronic transfer facility; b) Statement of Investor complaints; Corporate Governance; Shareholding Pattern; c) Financial Results; d) Annual Report; e) Certificate from Practicing Company Secretary; f) Reconciliation of Share Capital Audit; g) Appointment of New Share Transfer Agent; h) Listing Fees & Other charges; i) Notice for Board Meeting to consider the prescribed matters; j) Disclosure of Price-Sensitive Information; k) Outcome of Board Meeting; l) Notice for Record Date/Corporate Action; m) Declaration of Dividend; n) Dividend Distribution Policy; o)Voting Result; p) Company Website; q)SEBI Takeover Regulations; and r)SEBI (Prohibition of Insider Trading) Regulations
Kotak Committee recommendation, 2017	Compliance with stock exchange(s), the SEBI (LODR) Regulations, 2015 has widely covered all the requirements.

Source: The authors

Since the digital transformation is a recent phenomenon and there are less empirical evidence on how the digital transformation effectively balances the corporate governance setting. The paper focuses on the latest development and issues relating to digital transformation in company law and other regulatory frameworks. A comparison of the three regulatory frameworks and related laws of corporate governance in Table 1 specifically focussed on the provision related to digital transformation which is recommended or enacted for strengthening corporate governance practices in India. The Kotak Committee recommendations (2017) make major changes and far-reaching significance difference from new Companies Act and

SEBI Listing Obligations and Disclosure Requirements. Even though SEBI regulations on Listing Obligations and Disclosure Requirements legislated to bring into line with the new Companies Act especially in matters related to corporate governance, however the latest Kotak committee makes drastic changes on strengthening the corporate governance framework and broadens the digital transformation. The Kotak committee specifically focussed to adopt on digital transformation by recommending on forming an information technology committee in addition to the risk management committee, to focus on digital and other technological aspects (Kotak Committee, 2017). The latest digital transformation of regulatory framework and recommendation indicates the far-reaching impetus in Indian corporate governance reforms has been on shareholder engagement and information, disclosure and filling compliance requirements. Like the UK and other EU countries, the regulators need to implement digitalization in company law and promote the directive of shareholder rights and shareholders e-identification. There is a requirement for the company to provide certain relevant information to shareholder and make accessible on the company's website, including shareholder rights and queries, webcast on shareholder general meeting and e-voting (Tricker, 2009; Armour et al., 2016). Digital transformation provides the platform to connect and communicate with businesses in faster medium (Miglani, 2017). In table 1 presented that the listed companies require providing certain information to investors on their website and e-facilities in any other proceedings. The successful digital transformation outcomes depends on the perfectly executed process by the organisation and responsive to changes, challenges the status quo and streamlines the products, processes, services and interfaces using digitized information and digital communications (Ziegler, 2017). Digital transformation will help to boost the competition, ensuring firm development, innovation and long-term growth.The digital drive will help to transform the system by creating the better relationship with their customers, shareholders, market regulators, stakeholders and employees, and labourers.

The underpinning of good corporate governance approaches is to have oversight mechanism, the right medium of checked and balances and satisfactory communication between company and investors which reflects the long-term well-being of the company (Monks &Minow, 2008). The top priority of corporate governance policies of the companies needs to focus the interests of the shareholders and protect their rights. Trust is the foundation concept of corporate governance (Tricker, 2009). Building long-term relationships, trust becomes the foundation of the company boards, shareholders and other stakeholders. Open communication and information will build the trust among various participants of the company. Stewardship, integrity, accountability, and honesty of boards are also others components of building trust. The shareholder's expectation from the companies is providing them with the right information about the financial position; turnover, share price and other reports. Professional shareholder relations can improve a company's position and eventually its share price, while companies need to be careful to avoid providing sensitive information about the share price to certain shareholders (Tricker, 2009). To improve the oversight mechanism and stewardship role, institutional investors' play the important part in corporate governance. And the Kotak committee specifically recommended the stewardship code to enhance the institutional investor's roles in the company. Redressal of shareholders grievances and responding the shareholder queries services become better through the up gradation of digital transformation in India.

Challenges of Digital Transformation and Corporate Governance

Cybersecurity continues to be the biggest challenge to the economic and physical welfare of governments, individuals, and businesses worldwide (Trautman, 2016). Safety is another hindrance to the digital transformation of company law as well as corporate governance. The strength of the system in the company will constantly be measured against its weakest link when it comes to the matter of cybersecurity (Chauvin et al., 2016). In India, Information Technology Act, 2000, and other laws provide legal identification to electronic articles and a system to support e-filing and e-commerce transactions and provide a legal groundwork to moderate, check cyber-crimes. The Information technology has rapidly changed over time; protection and safeguarding the information become most challenging tasks in the business world. It requires multifaceted dimensions security from external cyber threat and needs to start the simple solution security to higher cybersecurity management (Chen et al., 2004).

The Wikileaks and other disclosures indicate that hackers can crack the multi-layered security walls. However using sophisticated corporate intranet systems, additional care is required when board-level and shareholders data is involved. Right of excess to the information requires the meticulously well-defined and organised through access controls such as PINs, passwords and codes, which should be changed time to time (Tricker, 2009) and to strengthen the shareholder rights and its directive,the company need to create a facility of e-identification and others security like the electronic identification and trust services for electronic transactions (eIDAS) Regulation (Armour et al., 2016; Chauvin et al., 2016). The companies' boards are well-directed to look beyond that changing technology forces and companies' law guidelines will demand the courts and regulators to enforce companies' boards to oversee cybersecurity with attention related to that expected of legal compliance professionals. In these decades, rises the cybersecurity-oversight duties and companies' board obligation are entrusted to bring breath-taking and significant changes in corporate law (Lunn, 2014). The rise of system infiltrations becomes a very serious governance concerns. Cyber-attacks can affect company's management as well as hacking the intellectual property. Without proper security system, cyber attackers can certainly manipulate the results of voting on the digital platforms and registered systems used in shareholder annual general meetings (Chauvin et al., 2016). Briefly, protection of data security should be the primary focus of board action and oversight. The proactive action is necessary from board members to handle the corporation storage of sensitive data, classify the vulnerabilities of those data, and develop effective strategies for protecting those data and reciprocate all kind of measureon data

breaches (Davis et al., 2015). The digital transformation may provide a better execution of work; enhance the communication line and relations among various participants of the company, like boards, managers, employees, shareholders and stakeholders. There is a need to monitor the cyber risk and develop the advanced cyber security mechanism to protect the company. The cybersecurity policy in India needs to be updated and further strengthened the infrastructure.

The regulatory framework of corporate governance and other related laws are broadly in place, the regulatory bodies and other responsible authorities are proactively finding the best way to strengthen its regulation to enhance corporate governance practices. Corporate governance standards should not convert merely into another legal article to be signed off by directors at the time of filing regulatory documents. In essence of corporate governance, the spirit of the laws and principles is much more imperative than the letter (Chakrabarti, 2005). Contemporary corporate Governance holds a pre-emptive method that achieves the desired goals in an all-inclusive and better way. Directors actively engage with shareholders from a functional context rather than a point-by-point reactionary context (Subramanian, 2015).

Conclusion

This paper discussed on Indian corporate regulatory frameworks and examined the relationship between digital transformation and corporate governance. First, the paper studied the related basic meaning of digital transformation and corporate governance, and familiarizes the concepts of both the terms and its relations. And the related existing corporate governance regulatory frameworks are compared to understand the implication and cascading effect of digital transformation in India.The paper finds that digital drive is gradually emerged and integrates into corporate governance system. Digital transformation enhances better, faster and less costly way of communication with investors and vice versa, which increases the cost-benefit of the company. In India, recently undertook many reforms and other measures on corporate governance, and observed the need for promoting the digital drive to strengthen the governance mechanisms and practices.We argue that digital transformation strengthen the corporate governance practices in India, especially on shareholders and other stakeholders' relation, engagement, disclosure, and meeting proceedings. Disclosing important information to shareholders and others statutory requirements for the periodic filling to stock exchanges electronically help to reduce the communication costs as well as promote good corporate governance practices. The digital transformation provides better services to shareholders through e-facilities, e-voting and webcast in shareholders meeting which help the inclusive shareholders participation in decision-making. Cybersecurity has become the major challenges and obstacles on digital transformation.The stringent cybersecurity regulation is paramount both for the regulators and companies from external threats through cyber-attack.The paper suggests that for better corporate governance practices, the stringent cybersecurity policies and regulations are necessary to establish at the highest level.

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Digitalization and Corporate Governance: Status and Challenges in India

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Abstract

Purpose- *The purpose of this paper is to develop the understanding of Digitalization and its role in modern Corporate Governance. Corporate Governance is most relevant issue related to the accountability and the performance of the firms. Digitalization for Corporate Governance is something which cannot be ignored in the world of globalization where the digital presence leads to the better business governance with digital capabilities. India is in the phase of digitalization and its role in better business performance cannot be ignored. But being a developing country there are certain challenges which needs to be addressed.*

Design/Methodology/Approach- *The existing literature related to the domain of Corporate Governance and Digitalization is reviewed so as to develop the understanding of the challenges of Corporate Governance and Digitalization in India. This paper covers insights on the subject for developing a deeper understanding of the various challenges of for the same in India.*

Finding- *Digitalization and its role in Corporate Governance is emerging area of study in developing economies. India with a huge potential for business development and needs governance with the application of technology but being a developing economy India has certain challenges. Various initiatives have been taken by the Government but the challenges needs to be addressed. It would be interesting to explore the challenges of digitalization for corporate governance in India.*

Originality and value- *This Paper is an Attempt to Understand The Challenges of Digitalization and Corporate Governance.*

Keywords- *Corporate Governance, Digitalization, India,*

Paper Type*- Empirical Research*

Digitalization and Corporate Governance: Relation

Digitalization influences the way business is transacted and is impacting every aspect of society and organization. It impacts Corporate Governance (CG) by facilitating faster communication, availability of data to a larger segment and putting threat to the safety of the confidential information. It is a challenge to create value for the organization and to develop the strategic content to face the digital world. Digitalization puts a huge amount of data for the management which is analytical and requires careful analysis to use it in the decisions affecting the organization while maintaining the confidentiality of the same. CG is the ethical management of business affairs by the taking care of the interest of all the stakeholders and based on the principle of transparency. Better transparency requires faster and safer way of sharing the information. Third industrial revolution is digital revolution which is can be referred as the "information age" (Brown & Marsden, 2013). Timely gathering, analyzing and using the information for the benefit of the organization requires that the board has to be well equipped, trained and aware of the global challenges. The business environment is changing fast globally but the basic principles of CG remains the same. Profit earning is not the only objective for the organization but value creation for the stakeholders in the long term is the most important purpose of CG. It requires setting the right perspective at the top management so that the decisions are made with long and short-term objectives. If the board fails in these responsibilities, the organization runs the risk of being sanctioned by regulators, bad public opinion and reputational damage.

Digitalization and Organization

Digitalized organization means using digital technology to do the work, all information online, quick responses and connectivity, automated email systems. But to be a digital organization requires more than technology. It requires the change in the thinking of the organization. The purpose of digitalization is to be customer friendly. The purpose of digitalization should not be for the ease of business for the organization but for the customers or the stakeholders also.

As quoted by Amazon's, the world leader in using technology and digitalization about the mindset of the organization, "Every anecdote from a customer matters….We treat them as precious sources of information." But The New York

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Times reported another side of digital organization, "The user is not just the customer—your employees are actually the "users" of your culture. So, truly digital organizations are relentlessly focused on their employees, even if that's harder on management or the organization".

Eliminating private spaces in offices, by making the employees feel that they have access to their seniors, making easier for the employees to feel comfortable in the their offices, that counts for the mindset. The organizations gains from theses mindsets as they find their employees more enthusiastic and result oriented. Organizations get better job applicants as they have ever piece of information and content created by them online.

Ko & Fink, (2010) and Newell & Marabelli, (2015) argued that information and digital age has tremendous impact on future and it will continue to do the same. Digitalization has impact on societies, our daily lives, consumption behavior, products and services. This definitely impacts the organizations, their competitive advantage, demand, process, and innovation. As digitalization has the power to "rewriting the rules of competition" (Hirt & Willmott, 2014), it impact the organizations by making available large amounts of data, new technologies and new threats and opportunities.

A mysterious hacking group Shadow Brokers claimed to breach the spy tools of NSA-linked Equation Group in August 2016. A sample of NSA data was attempted to auction for a bigger price. The group's leaks highlighted the danger of intelligence-gathering. This shows how digitalization put the companies vulnerable to competition, financial, compliance and reputational risks (Valentine, 2014). It can be assumed that every organization have to face the impacts of digitalization and therefore they need to change and channelize their resources according to the changing needs.

Digitalization, Board of Directors and Corporate Governance

Stakeholders are aware and know that corporate governance really matters. This cannot be taken in traditional sense maximizing shareholder value, but to decide the future of economic and political systems. CG has always been seen from the perspective that the management is responsible for the behavior and affairs of the organization (Fama & Jensen, 1983). The independence of the directors has always been emphasized (Daily et al. 2003) to control the domination of the board keeping in view the agency theory. Director's independence is focused on board composition, proportion of outside directors and CEO duality. Organization for Economic Cooperation and Development, Sarbanes Oxley Act (US), Security Exchange Board of India's (SEBI) Listing Agreement (India), Company Act 2013 (India) and corporate governance codes all over the world are based on the perspective of director's independence. In recent years independent directors became more "independent" than ever before. Agency theory emphasizes on contract between management and the owners and rational decision-makers but do not explain about the boards' power and potential contributions. Although there is not much of empirical evidence, supporting the impact of independent board on organizational value creation but definitely new areas for board's impacts have to be searched. (Huse et al. 2011). Corporate scandals such as Enron, Satyam and WorldCom questioned the role of boards. Now, as stakeholders perspectives is more and more emphasized and argued (Tihanyi et al., 2015) broader role of board is looked upon other than decision making and control.(Zahra & Pearce, 1989). Recently the researchers started looking at the role of board inside and outside the boardroom and the board dynamics, their role and involvement in organizational outcomes (Huse, 2005; Minichilli et al. 2012; Zattoni et al. 2015). Newell & Marabelli, (2014) highlighted the changes due to digitalization and emphasized the role of independent directors. The independent directors will not only be responsible for control management but for information management also. Due to digitalization the information is shared beyond the organization. The information is created and shared by the public in the form of review or comments. This information in the form of reviews and comments impact the stakeholders view. The stakeholders view impact the behavior of the organization and the management. (Orlikowski & Scott, 2014). Therefore, public have indirect control over the management and the , management has to be transparent to the public and adapt its behavior. To serve these issues the boards must move beyond an arms-length relationship with digital matter. Board should be knowledgeable about the technology environment, its impact on their organization and its value. They should also understand it can impact existing strategies. The board should be faster, effective and should operate and attract digital talent.

Status of Corporate Governance and Digitalization in India

In India CG norms are defined and laid in Company Law (2013) and SEBI's Listing Agreement for Public limited companies. These acts and provisions provide detailed rules governing the CG in India but there are no such special provisions related to digital and information management of the companies. But certain initiatives are taken to help in the process of Digitalization of the Companies:

1. Central Government in October 2006 a Scheme for implementation of e-Governance Programme "MCA-21 Project". The Scheme was known as the "Scheme for Filing of Statutory Documents and Other Transactions by Companies in Electronic Mode". The purpose of the scheme was to provide easy and secure on-line services to the corporate, entities and individuals for filing of data and registration and enable various transactions of the offices of the Registrars of Companies, Regional Directors and the Central Government.

2. SEBI in May, 2017 initiates the process of digitalization with the opening of an online portal. The portal would provide one place for online application for registration, processing and grant of final registration, application

for surrender/ cancellation, submission of periodical reports, requests for change of name/ address/ other details for the various categories of market intermediaries viz. stock brokers, sub-brokers, merchant bankers, underwriters, registrar to an issue and share transfer agents, debenture trustees, bankers to an issue and credit rating agency.

3. Further in the same process of digitalization, transparency, accuracy, and safety and faster services for Portfolio Managers and Venture Capital Funds an online registration and regulatory compliance system was also introduced by SEBI in May 2017.

At present, corporate governance and sustainability considered as an integral part of business operations. The businesses' are realizing that they have to balance the interest of the stakeholders or they will have to bear the consequences. As part of corporation's relationship with the stakeholders, the board must decide a framework of rules and practices to ensure transparency, fairness and accountability.

Challenges of Corporate Governance and Digitalization in India

The Digital India programme is facing multiple challenges in successful implementation due to lack of policies and infrastructural bottlenecks. There are issues related to taxation and regulatory guidelines whereas contracting challenges also hampers the process of digitalization.

Assocham-Deloitte Report 2017 titled "Digital India: Unlocking the Trillion Dollar Opportunity "highlighted that in India "Some of the common policy hurdles include lack of clarity in FDI policies, which have impacted the growth of e-commerce. Transport services like Uber have had frequent run-ins with local governments due to legacy policy frameworks which have not become attuned to the changing business landscape". Digital India programme is the slow/delayed due to infrastructure development. Spectrum availability is the biggest challenge in providing high speed data services.

People need to be educated and it has to make them understand the power of digitalization. Working on IT literacy is a great task and the stakeholders have to know how to utilize the digital services.

Security of data is very important issue which needs to be taken care by the companies because digital medium is still very unsafe in India and data vulnerability is a big issue. As a key aspect of risk management, privacy and data protection is an important governance issue. In this era of digitalization, a sound understanding of the fundamentals of cyber security must be expected from every organization.

Good governance will be only achieved if executives are able to engage and understand the specialists in their firm. The board must assess the potential risk of handling data and take steps to ensure such data is protected from potential misuse. The board must invest a reasonable amount of time and money in order ensure the goal of data protection is achieved.

Organizations all over the world are facing the problem of business models becoming digitally disrupted. While the digital revolution affects business, digital technologies are transforming the customer experience. Companies are tailoring the products or services to the unique preferences of each customer and the way they deliver their products or services providing the comfort of obtaining the products and services as per the choice of the customer.

In India the companies are still struggling to find out the ways to utilize digital technologies. It is difficult for the companies to change their strategies and successful processes to meet the challenges of digitalization. This process of transformation may lead to wrong choices may put them in risk zones.

Conclusion

Digitalization is the process or the mechanism which has affected all the facets of life and similarly every type of organization throughout the world. The only choice left with the firms is either to transform themselves and their strategies to meet the challenges or they will lose to their competitors who will be fast and more competent in adopting these changes. The major challenge lies with the Board and the management of the companies as they are responsible for the better governance and management of the company. They are responsible to assemble and utilize the information and technology keeping the safety and security as the primary concern and delivering the best results of the organization. Government is providing initiatives for Digitalization by providing the policies, reforms and infrastructure but the firms will have to understand that Digitalization is nothing which is been imposed but it is the need of the hours and their sustainability depends on how quick they respond to the change.

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Studying Social Intelligence: Linkages With Other HR Domains in The Indian Context

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Abstract

In the fast-paced digitized world, people are not connected to each other socially. The world might have become smaller due to the improvements in technology but it hasn't brought the people closer in terms of social or mental connection.The ability of an individual to understand one's social environment and act accordingly is termed as 'Social Intelligence'. Keeping these facts in view, the present study is an attempt to measure the Social Quotient score of post-graduate college students and analyze its importance for budding HR managers. The paper aims at studying the pattern of behavior that several individuals exhibit who differ on social intelligence levels. For the study, a sample comprising of 55 students pursuing Post graduate diploma in Human Resource Management has been selected. The variables included for the study are Perseverance, Cooperativeness, Influence, Warmth, Social Cognition, Perceptivity, Sense of humor and Memory. Few variables like Cooperativeness, Sense of humor and Memory are taken from an existing standardized scale by N.K. Chadha and UshaGaneshan for developing a scale to calculate and measure Social Quotient score in individuals. Some major findings of the study indicate that male and female students significantly differ on social intelligence and that malestudents obtained higher scores on social intelligence as compared to femalestudents. This study also reveals that students who perform well in the college had higher SI scores. Moreover, the level of social intelligence of individuals having science background was found to be higher.SI is a dynamic parameter that can be improved by any individual, earlier researches have established that an individual has complete control over one's SI level and can increase one's score by practicing certain behaviors and attending trainings. In the digital age, where people are connected to each other over mobile platforms and media, it becomes extremely important to measure the social intelligence score of individuals (or the level of interpersonal skills) which actually determines the behavior of an individual in the existing environment.

Keywords: *Social Intelligence, Social Quotient, Social Cognition*

Introduction

Social intelligence means the ability to think inside the other person's mind and understand their intentions. Some individuals who are high on social quotient/intelligence score display certain common behaviors such as: putting one's feelings and emotions aside and reading the other person's character, having a smiling attitude, being sensitive to others, understanding others emotional states, listening to others, maintaining eye contact, maintaining appropriate body language, speculating situation, being assertive without being aggressive and many others. It is the ability to understand from other people's emotions and behaviors through interactions (TEDx, 2014). SI is the innate ability to pick up on body language, understand jokes and find a sense of humor, encourage and motivate others, participate in conversations and understand how to behave and respond appropriately to the environment we are in. It is a science which explores the way we connect with others right from how we make friends to how we influence others. Social Intelligence is a science of interpersonal relationships and is closely related to theory of mind. It means becoming smart in relationships by being empathetic;by being able to sense what people are feeling and gauging their intentions. Secondly, it means having the social skills to act on that information.

Social Intelligence helps individuals in actively managing one's relationships in both personal and professional life. It is not a fixed attribute rather it isequilibrium between external environment and behavior of a person. It could be improved by practicing certain set of behaviors. Goleman stated that anyone can become a better listener by being motivated and mindful in social situations. People with high SQ score tend to pause and listen to others and thereby fine-tune their response to them instead of just saying what they think. People feel important and contented when they receive undivided attention from others. And most of the times, the 'others' are good listeners. The people with the most social intelligence are those who are good listeners, Goleman says (Goleman, 2006).

It is a knowledge that can be gained, a skill that can be developed. Once a person makes an effort, and practices the skill, it comes naturally.It is highly important that individuals are high on SQ as the world is moving towards electronic media where everyone is comfortable interacting to others through social media platforms rather than in person. With surge, in use of cell-phones for communicating to each other, there are high chances of people having low SQ scores.

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Relevance of The Study

Social Quotient is an utmost important parameter in determining the level and type of interaction within an organization. A manager should be receptive enough so as to respond to the person or situation accordingly. This is a parameter which is not only essential for managers or senior level employees (belonging to diverse areas of expertise) but is also crucial for any individual working in the organization. Any individual working in an organization who is socially aware can keenly observe people in different situations, is able to detect the moods/feelings of others and can manage others' emotions easily. They have a control over the entire situation and can respond effectively to any critical situation.

But the people working in the HR field are the ones who need to be high on Social Intelligence/Quotient score. They are the ones (in any organization) who interact with different people across different departments throughout the day. Study of Social Intelligence canbe applied to various HR functions and areas like recruitment and selection, learning and development, organizational leadership, organizational citizenship behavior and determining the code of conduct of an individual.

Social Intelligence and Sourcing in Organizations

After IQ and EQ, Social Quotient is the upcoming parameter to attract and develop staff. Companies are realizing that businesses are more than just monetary exchange for goods/services (Williams, 2012). Someone with a high score on social intelligence will have the ability to positively influence and inspire others to achieve; also at the same time, being able to prioritize their work so as to generate the maximum output. It is not just about achieving goals but the importance is also being given as to how these goals are being achieved. Thus, organizations are looking out for individuals with excellent interpersonal skills and are trying to hire people with these capabilities. Many organizations have started measuring the Social Intelligence aspect in their recruitment and selection basis. Companies are seeking out individuals who could easily adapt to the existing work culture. In job interviews, in order to portray as more fit for the job, one tends to lie about or conceal certain important information. A manager well trained in studying the SQ score can easily identify if a candidate is well suited to adapt and work in its organizational culture by testing one's interpersonal skills in the form of situation-based interviews. This can highly reduce the chance of a bad recruit, which could otherwise have cost the organization financially and morally.

Social Intelligence and Learning and Development

All organizations desire to be learning organizations. Management training programs should be focused more around identifying and cultivating the social intelligence of future leaders. Since values flow successively from higher level to lower level of the organization, thus training the top management on SQ is necessary. Different individuals have different learning styles and learn at different pace. An individual with high SQ score can actually learn at a better pace as compared to others and such individuals tend to learn and grow taking others along. Thus, organizations could measure SQ score of existing employees and devise methods for individual development through training. This would enable employees with low SQ score to undergo specific behavioral trainings and improve their SQ scores. Businesses and employees need to be agile enough to anticipate and handle unexpected changes, and nurturing social intelligence in the organization is thebest way to do this.SI would further aid organizations in segregating employees based on their social intelligence scores (high, moderate and low) and arranging for trainings and seminars accordingly.

Social Intelligence and Organizational Leadership

When it comes to leadership, a leader's success entirely depends upon the effectiveness of others- how one is able to effectively guide, motivate, grow, influence, persuade, develop, and inspire others. Several emerging leadership theories state that social intelligence is an important qualityfor leaders and managers, because cognitive and behavioral versatility and flexibility are important characteristics of competent leaders which form a part of SI(Beheshtifar & Roasaei, 2012). Day after day, SI is increasingly gaining popularity and becoming extremely important in understanding how successfully people manage social relationships. An individual with high social quotient score generally tends to be aware of one's surroundings and thus, can impact the performance of others positively. Personal skills such as perseverance, warmth, social cognition, adaptability, and cooperativeness are considered to be the key tools in a leader's toolbox. Lacking awareness of one's emotional impact on others can doom a leader to failure as a people manager, regardless of how competent one is in respective subject matter or job skills. Social intelligence, in case of leadership, recognizes that the most important activity of a leader is to connect with others in order to bolster and amplify the latter's performance.

Importance of The Study

The organizations operating in the VUCA world have changed their way of functioning. Organizations in the corporate world are looking for individuals who can carefully observe, use their instincts to understand their surroundings/working environment and act appropriately. People with high SQ score work exceptionally well in jobs that involve direct contact and communication with others. Individuals with high SQ score are more sensitive towards change in contingencies, and thus, are able to detect the moods of others or what the other person is thinking. Some behaviors depicted by socially

intelligent individuals are: figuring out how someone thinks or feels, becoming self-aware, making guesses about what people are doing, figuring out how one is supposed to behave, apologizing when people may have thought one did something wrong, knowing how to stay calm in a difficult situation, figuring out what people are planning to do etc., (Social Smarts and Science Smarts). This in turn allows a socially intelligent person to manage the moods of others as well as manage one's impression over the others. Those who are highly socially intelligent tend to gain more respect among the peers and their opinions are highly valued.

The study is aimed at making the students cognizant about their current social quotient score and the areas which require improvements in order to instill the important parameters into one's personality. Also, it would motivate the students to further invest in themselves to maximize their full potential and become the best version of them. In order to become socially smart, students can practice certain behaviors which would in turn make them socially intelligent. Everybody knows what to do in critical situations, but most of us fail to execute the same because we fail to practice it. Having self-awareness, students could actually use social intelligence in order to behave properly in everyday social situations. This would make them organization ready to get absorbed and succeed in future endeavors.

Literature Review

The review of related literature on social intelligence reveals that the construct of social intelligence has attracted many researchers. Success in performance of the students depends on their intelligence and is positively related to social intelligence (Saxena & Jain, 2013). Vyrost and Kyselovainvestigated interconnections between social intelligence, wisdom, values and interpersonal personality traits. The result revealed that there were close mutual relations between social intelligence and wisdom related knowledge. However, it was felt that it is necessary to study the effect of gender on social intelligence. The review of literature reveals that this relationship has not been explored yet, hence the present investigation was undertaken to find out the social intelligence of post-graduate students in relation to their gender.

Thorndike in 1920, postulated a framework of human intelligence differentiating between ideas, objects, and people as the contents, the human intellect has to deal with. Basically, he discriminated between academic, mechanical, and social intelligence (Seal, Boyatzis, & Bailey, 2006). In this framework, Thorndike defined SI as "the ability to understand and manage men and women, boys and girls, and to act wisely in human relations". Thorndike's idea of social intelligence is still fundamental to any other given definition. Notably, his distinction between cognitive (i.e., to understand other people) and behavioral (i.e., to act wisely in human relations) components has been specified in only one other definition of social intelligence. Thus, Vernon defined social intelligence as "knowledge of social matters and insight into the moods or personality traits of strangers" (cognition) and as the ability to "get along with others and ease in society" (behavior). Some definitions of social intelligence, along with their chief protagonists, are listed as follows: "the ability to get along with others" ; "judge correctly the feelings, moods, and motivation of individuals"; "the ability to judge people with respect to feelings, motives, thoughts, intentions, attitudes, etc."; "individuals fund of knowledge about the social world" (Saxena & Jain, 2013). Psychologist Nicholas Humphrey believes that it is social intelligence, and not the quantitative intelligence that defines humans. Social scientist Ross Honeywill believes social intelligence is an aggregated measure of self- and social-awareness, evolved social beliefs and attitudes, and a capacity and appetite to manage complex social change. According to Daniel Goleman, in his book "Social Intelligence: The New Science of Human Relationships", our brain is designed to make connections with other humans, and that our relationships have a real biological impact. In other words, all humans are wired to connect (Goleman, 2006).

Academic achievement is considered as the display of knowledge attained or skills developed in the subjects learnt by students in school. It is a key mechanism through which adolescents learn about their talents, abilities and competencies that are an important part of developing career aspiration. In situations where people live and work together, intelligence and academic achievement are constantly under scrutiny and evaluated. IQ alone is no more the only measure for success; emotional intelligence and social intelligence also play a big role in a person's success Goleman (1995).

Methodology

Objective

To determine the parameters majorly required for measuring social quotient and study the impact of SQ score on performance of students.

Conceptual Framework

For measuring SI, some constructs like Cooperativeness, sense of humor and memory have been taken from an existing scale developed by Chadha and Ganesan Social Intelligence Scale (1986). The remaining parameters have been chosen from "Qualities of a Good Boss"- an excerpt from Social Intelligence by Daniel Goleman. The parameters used for measuring Social Intelligence as per the investigators' objective are defined as follows:

Perseverance- ability to listen to others', remain calm and act in an appropriate manner

Cooperativeness- the degree to which a person is generally agreeable in his/her relations with other people rather than being self-centered/ ability to get along with others

Influence- the ability to have an effect/impact on other people in terms of views, ideas, opinions and suggestions

Warmth- the capability to feel the emotions/moods of others and having a sense of kindness towards them

Social Cognition- the capacity to study/observe and understand one's surrounding; be aware of one's environment or surrounding

Perceptivity- the ability of gauging people's actions and acting accordingly in a wise manner

Sense of Humor- the ability of an individual to wittily lighten his/her atmosphere

Memory- the length of time over which a person or event continues to be remembered

A 6 point likert scale ranging from 'Disagree very much'(1) to 'Agree very much'(6) is chosen to gauge the responses of students.

Sample

For the purpose of study, primary research was conducted which involved collecting responses from b-school students. For the present study, the sample consisted of 55 post graduate students (first year=20 and final year=35) selected randomly pursuing PGDHRMcourse at IMI, New Delhi. The sample was selected on the basis of random sampling technique.

Tool Used

For the present investigation, the following tools were used:

1. Chadha &Ganesan Social Intelligence Scale (1986)

The data for the present study was collected with the help of 3 constructs from N.K. Chadha and UshaGaneshan Social Intelligence Scale (1986) which intends to assess the social intelligence of college students(Hooda, Sharma, & Yadava, 2009).

2. Academic Achievement

Aggregate percentage of marks obtained by the sample subjects in their previous education was used as a measure of academic achievement (Nazir, Tasleema, & Ganai, 2015).

Data Analysis

In order to analyze the impact of SI on individuals, statistical analysis of the data has been done. For the purpose of present research, the investigators used reliability, validity and descriptive analysis (mean, median and variance). Since the items are developed newly, thus exploratory factor analysis has been done of the collected responses.

Reliability

On performing the reliability analysis of the test, it was found that the reliability coefficient (Chronback Alpha) of all the parameters was in the acceptable range i.e. (>0.7) [refer to table 1]. Hence, these parameters are able to measure the level of social intelligence of students thus, the final test is consistent and stable in measuring social intelligence.

Validity

1. Content Validity

Initially, the questionnaire comprised of 31 items which were given to four experts for content validity purposes. On seeking the experts' advice, the Content Validity Ratio (CVR) of all the items was calculated and it was observed that two items had negative CVR ratio i.e., majority of the experts were not in favor of having that particular item in the questionnaire. Thus, two itemswere revised/re-phrased before administering the final questionnaire to the students. The acceptable range of CVR lies between -1 to 1. But the items with negative value of CVR are generally expected to be eliminated. Hence, the final questionnaire had content validity. The final list of items was able to measure the construct (SI), it intend to measure.

Exploratory Factor Analysis

Post content validity, the total number of items in the questionnaire were 33. An exploratory factor analysis using SPSS has been done on the developed questionnaire in order to identify the parameters that actually contribute to measuring or determining the social quotient score. The investigators initially had begun with eight factors namely Perseverance, Cooperativeness, Influence, Warmth, Social Cognition, Perceptivity, Sense of humor and Memory. The results of EFA indicated four factors mainly responsible for determining the SQ score and they were: Perseverance, Perceptivity, Social Cognition and Sense of Humor. Finally, the number of items reduced from 33 to 13. The final 13 items are required to gauge the level of social intelligence of an individual.

1. Construct Validity

Convergent Validity

Post factor analysis, the final items reduced to 13 belonging to four dimensions. Based on the dimensions mentioned in table 2, convergent validity of the same was tested. The convergent validity coefficient for all the dimensions was found to lie in the acceptable range i.e., greater than 0.7. Hence, the test was able to actually relate the dimensions accurately that were theoretically related. Thus, convergent validity exists.

Discriminant Validity

In order to test the discriminant validity of the test, the variance extracted between the components was compared to the correlation coefficient (obtained from component correlation matrix in SPSS). Kindly refer to table 3 for values. On comparing the two values, it was found that the former is greater than the latter, thus satisfying the conditions for establishing discriminant validity. Thus, the test was able to differentiate the constructs that are not supposed to be theoretically related.

2. Criterion Validity

Criterion validity explains the relationship of the academic performance of b-school students vis-à-vis their SQ scores. The table 4 depicts that 4.36 variance (see value of r square) in overall academic performance of students is explained due to the SQ score of individuals. Since the size of sample is small, hence the variance obtained is less. It thus states that academic performance is linked to their SQ scores. The higher the SQ score, the better is the performance of a student.

Descriptive Statistics

The table 5 reveals the mean comparison of male and female students on various dimensions of social intelligence. It is clearly visible from the table 5 that male college students have been found to have more perceptivity, perseverance, are socially aware and have a good sense of humor than female college students. The resultof the study shows that male students have better social intelligence as compared to female students. Therefore, we may say that male and female students significantly differ on various dimensions of Social Intelligence.

Moreover, the Social Quotient score of students ranged from 126 to 188 having a mean score of 155.09. The range for scoring was as follows: scores equal to or less than 82 or less signaled that SI needs substantial improvement, scores lying in the range 83-147 needed improvement and those individuals having SQ score 148 or more had it as their strength. Since, a majority of the students belonged to science background, they are found to have a relatively high score of social intelligence.

Findings

The investigators upon observations of results founded thatmale and female students significantly differ in levels of Social Intelligence. Males are seen to have more social intelligence as compared to the females.SQ scores impact the overall performance of an individual. The higher the score, the better the performance. Students having science background generally tend to be moderate to high on SQ score.

Conclusions

Social Intelligence level is a parameter that keeps on changing with time. It doesn't remain constant for lifetime. Thus, an individual has complete control over one's SI level and can increase one's level by practicing certain behaviors and attending trainings. SI is an important characteristic that needs to be identified and should be nurtured. The rapidly changing world desires people having high levels of SI and is focused on creating leaders who can actually sense their environment and act accordingly. Gone are the days when IQ was considered to be the only essential parameter while hiring someone. Nowadays, organizations are looking out for candidates having a mix of IQ, EQ and SQ. Thus, b-schools should aim to measure SQ score of students, identify individuals with low SQ and try to organize seminars or trainings to improve the SQ scores thereby creating better future managers and leaders. At all levels of education, an appropriate social atmosphere should be provided to the students so that they may develop reasonable level of social intelligence in future, in order to deal with the society more efficiently as well as to have better academic achievements (Ganaie & Mudasir, 2015).

Scope For Future Research

The study can be done taking into a consideration a larger sample size andpeople employed in different industries. The study could be further expanded to measure the impact of SQ score of individuals working in an organization on their performance. Moreover, due to a smaller sample size, the essence of SQ couldn't be gauged to extreme accuracy. This challenge could be overcome by taking a sample of individuals working in different organizations, different industries, belonging to a myriad of

cultures etc. Institutions should consider this an utmost important factor and take it into consideration for assessing the growth of an individual. The areas in which Social Intelligence can act as strength for an individual needs to be further explored. "Would organizations develop and use a proper scale for measuring SI/SQ of individuals?", "Will SQ become the most critical factor in the hiring process?", "Shall the performance appraisal be done using SQ?", "Would organizations start leveraging high SQ employees for employer branding?" In order to answer these questions, future research is a must.

The research on Social Intelligence can be done across various geographies so as to understand the ethical and cultural differences of various countries, thereby determining how individuals behave in different countries and might calculate Social Quotient scores accordingly. People tend to adapt to their environment and different cultures offer different environments.SI is a burning topic and many researchers are going beyond the simple definition of the same. Psychology has a lot to offer in terms of decoding the neuroscience of social intelligence. This is a parameter that has multiple facets which need to be unleashed.

Table 1: Reliability Coefficient

Constructs (2nd order)	Chronback Alpha
Perseverance	0.74
Perceptivity	0.74
Social Cognition	0.65
Sense of Humor	0.77

Table 2: Convergent Validity Coefficient

Factors	Convergent Validity	Acceptable Limit
Perseverance	0.796	>0.7
Perceptivity	0.830	>0.7
Social cognition	0.795	>0.7
Sense of humor	0.878	>0.7

Table 3: Discriminant Validity Coefficient

Factors	Variance	Variance extracted between the Components	Acceptable conditions	Correlation between the factors
Perseverance	0.633616	0.661	>	0.038
Perceptivity	0.6880703	0.660	>	0.202
Social Cognition	0.6312303	0.701	>	0.108
Sense of Humor	0.7700063	0.702	>	0.249

Table 4: Regression analysis

Regression Statistics	
Multiple R	0.21
R Square	0.043
Adjusted R Square	0.025
Standard Error	12.06

Table 5: Mean Comparison of Male and Female Students on Various Dimensions of Social intelligence

Sr. No.	Factors	Gender	N	Mean	Standard Deviation	Range
1	Perseverance	Male	20	14.68	2.47	3 to 18
		Female	35	13.37	2.31	3 to 18
2	Perceptivity	Male	20	19.05	3.24	4 to 24
		Female	35	18.94	2.13	4 to 24
3	Social cognition	Male	20	19.11	2.64	4 to 24
		Female	35	19.20	2.64	4 to 24
4	Sense of	Male	20	8.68	2.79	2 to 12
		humor				
		Female	35	8.11	1.84	2 to 12

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Impact of Digitization on Marketing for the Room Sales In Luxury Hotels

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Abstract

Digital experience is extended to hotel rooms. Guest is greeted by a tablet computer to arrange for online daily newspaper, a hotel guide, virtual concierge, online surfing, check out application.

*The luxury segment is a big deal because global luxury travel is the fastest growing of all the tourism and travel sectors. It's expected to reach **$195.27 billion** by 2021 as upscale hotels become a key focus in Asia-Pacific, Middle East and other regions. Historically, luxury brands have had a love hate relationship with digital marketing, so this will be a critical piece of the pie as the world's largest hospitality company works these brands into their overall digital strategy.*

Marketing using electronic media such as the web, email, interactive TV, IPTV and wireless media in conjunction with digital data about customer's characteristics and behaviours is known as 'Digital Marketing'.

The key objective is to promote brands, build preference, engage with customers and increase sales through various digital marketing techniques.

The activities involved are search engine optimization (SEO), search engine marketing (SEM), content marketing, e-commerce marketing, social media marketing, social media optimization, e-mail direct marketing, display advertising, and other form of digital media.With the growth in technology and newera, hotels have shifted from traditional marketing methods to the digital methods. Hotel guests/consumers also find digital ways easy to understand and to use.

The importance of social media is growing in the realm of Hospitality industry. More and more researchers are undertaking studies in the areas under the impact of social media on the hospitality industry. The leveraging of social media to the hospitality based product & service offerings has proven to be a good strategy not only for improvising the quality of business but also beneficial from the revenue management aspects.

Our research findings outlined in this paper focus on the trends in social media marketing and display advertising those are beneficial for luxury hotels and even for other hospitality related organizations.

***Keywords:** Hotel, Luxury Brands, Electronic Media, Marketing and Hospitality Industry*

Introduction

Internet has changed the way we plan our vacations and travel, but have luxury hotels and resorts kept pace with it. Internet is the medium of booking travel for affluent class as their primary travel and vacation planning resource, there is a greater need for luxury hotels and resorts to ensure they are using current, unique digital marketing strategies to reach today's tech-savvy travelers. About 50 independent luxury hotels & resorts, ranging from luxurious ranches tucked away in the mountains to beautiful island resorts, throughout the world were discovered with digital marketing techniques which resulted in success.

The hotel MIS module performs an important coordination of several guest service centers, such as front desk, housekeeping and tele-communication and enables the hotel to optimize its room sales through better product information.

Literature Review

A.M. Kaplan, M. Haenlein (2010) offer a more tech savvy definition, stating that "Social Media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content".

Hospitality as a subsection of tourism "is a fundamental part of the domestic and inbound leisure market. Consistent demand for tourism allows the hospitality industry to forecast demand and identify opportunities to increase consumer

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spend, creating a wave of secondary financial impacts" (Robinson, Lück and Smith, 2013). The hospitality industry has two sectors: the accommodation sector and the Food and Beverage (F&B) sector. This research paper is focused on the accommodation sector, with an emphasis on hotels. The reason behind this choice is that the hotel business has been an increasing in the past few years and it has received a lot of attention from researchers regarding its development and customer behavior.

According to Anderson (2012) Cornell Hospitality Hotel operators have suspected that the effect of social media and user generated content on hotel performance has been strengthening.Therefore, measuring these effects is vital for the hospitality industry. Ultimately, oneneeds to start figuring out your business objectives and then apply these metrics accordingly. The idea is that each business has different goals that need to be defined before putting a plan into action. The same applies for social media goals. They need to be specified before any measurements can be taken. Paine (2009) mentioned the need to know what problem you need to solve, you need to not do anything in social media if it doesn't add value .You can't manage what you can't measure – so measurable goals should be set. As emphasized, goal setting is of great importance in this matter. Therefore, a closer look has to be taken at the research problem. Rauch (2013) mentioned that one of the trends in hospitality forecasted for the year 2014 is social media and mobile communication and considers that keeping an eye out for authentic ways to make use of emerging social/mobile applications will be of great value to those in hotel marketing.According to A.M. Kaplan, M. Heinlein (2010) offer a more technology savvy definition, stating that "Social Media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content". "Web 2.0 refers to the principles and practice of facilitating information sharing and social interaction by users generating, altering and uploading web-based content" (Liburd, 2012). Mashable.com (2010) stated, "Social media is real life." Levinson and Gibson (2010) defined social media from a marketer point of view as "a set of tools that are free or nearly free and allow marketers and the community to create content and meaningful conversation online. Social media includes blogs, photo-sharing sites, video-sharing sites, social networks, audio podcasts, Internet radio, mobile social sharing and communication tools".Levinson & Gibson in 2010explained social media in a clear and uncomplicated way – That which allows anybody to communicate with everybody consumergenerated content distributed through easy-to-access online tools. Solis (2011) has his own way of defining the concept of social media, managing to combine the above mentioned definitions and seeing it as many things to many people and represents much more than technology. A societal renaissance that spawned a vibrant ecosystem supported by flourishing cultures and lifestyles. A platform for socialization of media; the online tools that facilitate conversations; connections between friends, peers and influencers; collaboration; the redistribution of influence; a call for humanizing personas and audiences, and the stories that link them together; compassionate an opportunity and a privilege.The democratization of information, transforming people into publishers; it is the shift from a broadcast mechanism, one-to-many, to a many-to-many model, rooted in conversations between authors, people and peers".According to Levinson and Gibson (2010), a social media marketer should have the following characteristics; first they should not be caught up in the enthusiasm of a new service or product before testing the tools and analyzing the results they are actually bringing. Second, a marketer should always be curious and interested in trying new options; he should combine different elements of marketing and strategy in a creative fashion. In a fast paced communication world, social mediamarketers should always be prepared for new opportunities and challenges. Another important trait of a marketer is transparency. By being given access to a high range of information that customers have nowadays, it is almost impossible to fool them without being noticed.There are currently more than 1.5 billion people around the globe with access to internet. Operators need to embrace the world online and ensure they deliver their brand through multiple (and ever-changing) channels. Considering such an increase in the use of social media in the tourism and hospitality industry, advantages and disadvantages should always be taken into consideration. A good way to start a social media marketing strategy is to clearly layout your goals and your success metrics before.

- Expanding the social footprint and reward existing fans,
- Drive traffic for brand websites,
- Amplify brand awareness,
- Increase newsstand buzz and single copy sales

Social media has to be transparent to achieve higher credibility for the brand, but this might also highlight what the brand is claiming to offer is inconsistent with the actual service offered. For example, Trip Advisor is one of the first websites customers go to before deciding between wide ranges of products. Brand owners should take great care of these kinds of websites as bad word-ofmouth may arise, but they should also take it as an opportunity to offer feedback to unsatisfiedcustomers and therefore improve their brand image. Levinson and Gibson (2010) consider it vital to clearly define goals, markets and target prospects and to create a strong brand and presence by carefully concentrating on the right content.

Research Methodology

The Present study is analytical and exploratory in nature. Therefore the secondary data is collected from various Annual reports of DOT, Journals, reference books, dailies, topic related websites of and other important links. The collected data has been analyzed to reach fruitful conclusions.

The purpose of this research is to answer the research question by first identifying who these stakeholders are; second, determine their digital communication goals and finally to establish how social media contributes to these goals.

Research Objective

- Identify the latest trends in Digital Marketing in Hospitality room sales
- Measure the impact of digitalization in Hotel room sales

Research Gap & Research Problem

One of the most essential problems that service providers have encountered is how to engage in social media marketing and how to validate whether it is profitable for their business to use it or not. Therefore, some of the most challenging aspects include the considerations of how one measures these results; how one determines the business value of social media, how one realizes the importance of social media to any organization, how one makes use of social media for a business in order for it to be accepted by the community whilst enhancing the brand and lastly how one measures the value of the accomplished efforts (Sterne, 2010).

It is vital for a company already operating for a while to have an online presence and be able to observe and measure the social engagement attentively in order to succeed in financial terms. Therefore the underlying research question of this thesis is "How do stakeholders in the tourism and hospitality industry measure the success of social media in their business?"

Research Analysis

There are various tools for social media marketing but is it actually worth using all of them? This could prove to be time consuming and evidently increase costs for companies. Depending on the company's goals and focus, some of the relevant tools may be used; consequentially differentiating one hotel company's objectives from another.According to a study done by Global Web Index shows the usage of the top 10 social media platforms according to different regions. The study is based on 170,000 responses from 32 countries around the world. China is excluded due to the restriction of some social media platforms in the country. The results show that Face book is at the first place with 43% active usage in Europe. Twitter, Google+ and YouTube are used 16-18% in Europe and the other platforms under 6%. The same study has compared the development of the top 20 platforms between the second and the third quartile of 2013. Interestingly, the results show that Instagram has seen an increase of 23% registrations compared to the previous quartile, whereas twitter an increase of only 2%, Google+ of 6%, LinkedIn of 9%. Face book revealed a decrease of 3% (Lunden, 2014).

Probably the most fundamental digital marketing tactic is paid search or pay-per-click (PPC) advertising. It is the fastest and easiest to measure technique. Despite being one of the most effective advertising methods, only 10 of the 50 luxury hotels we analyzed were implementing some form of a paid search campaign.

1. Paid search: is a fundamental step to any digital marketing strategy for a very simple reason - when people are using a search engine they are further along in the buying process than someone who is just browsing the web and sees a native (in-content) advertisement.

2. Organic Search: While Search Engine Optimization (SEO) was once the most fundamental digital marketing tactic and most loudly trumpeted by marketers, Google (the highest trafficked website in the world) is making it harder and harder for marketers to affect and measure where they rank on the search engine.

SEO losing its foothold not because it is losing its effectiveness or because companies are getting less and less interested in it. Quite the opposite really. Google, the world's largest search engine (and most visited website in the world) is making it harder and harder for marketers to affect and measure where they rank on the search engine.

Google is making SEO harder with things like localized search that changes search results based on a user's location. They also implemented social search which influences a user's search results based on what his or her friends click on. And now more and more organic visits to websites are showing up in web analytics software. One must ensure that your website is designed to be indexed easily by the search engines (straying away from things like Flash), work on your brand continually, and write really relevant content on a regular basis to keep the search engines coming back .The best SEO work one can do is to build your brand.

3. Social Media Prompt and courteous responses - just like the ones at front desk - are vital in building relationships with affluent travelers. Little Palm Island, a luxury resort in Florida, makes it a priority to ask their followers about their personal getaway experiences while The Pierre, a Taj Hotel in New York City, is known for assisting guests with reservations through Twitter and Face book. Both tactics show travelers that the hotel is paying attention to them, whether they have previously stayed at the hotel or are planning a visit in the future.

According to a report by Business Insider, the average American spends about 37 minutes each day on social media, which is longer than all other internet activities.

When weanalyze most of the hotel digitization process for the ultimate sales process (be it room, banquets, or food and beverages to be precise, 86% relied onFace book, 54% of the hotel give sales credit to their over 1,000 Twitter followers. Some

of the hotels also Instagram account. The most engaging hotels post between 1-5 times each day on Face book, usually accompanied by a relevant image. Tweeting several times a day is a most frequent practice these days, but posting a photo on Instagram may only occur after a gap of few days. Whichever social media and digitization platform is used, tourists and guests are more likely to be engaged when they see regular and relevant updates.

The bottom-line of the research stress the importance ofregular posting and that too quality contents and proactive responsiveness to the followers of various social media types.

While there are many facets to build a truly holistic website (such as visual design, friendliness in approach, user experience, conversion optimization, etc

4. Mobile First: The term "mobile first" means designing a website with the smallest screen in mind first; ergo, mobile devices such as your phone. This ensures that all of your content is easy to use and access on mobile devices and when the designer "scales up" the design for the tablet and desktop size screens, the content shifts into place to fill the screen. Think of it as a four column newspaper that when viewed on a mobile device all four columns are stacked on top of each other to form one long column, and when you view it on your desktop, the columns are side by side.

According to a report by ComScore, more Americans used a Smartphone or tablet to access the internet as opposed to a conventional desktop computer - the first time that has ever happened. According to another study 80% of affluent consumers own at least one type of mobile device.

When all 50 of the luxury hotels, only three (6%) had a responsive website and none of them seemed to be designed with the mobile-first methodology.

5. Fresh Content Posting: quality content on a regular basis is not only important for your potential guests to get a sense of the area, events and local attractions, it is also crucial for search engines. More and more travelers are looking to get a local experience when they stay at a hotel and to not just dine at the nearest chain restaurant or visit the local tourist traps. Search engines value regularly updated and relevant content and consider websites with great content more relevant to search queries than others.

Out of the 50 hotels only 15 of them operate a blog, sharing content related to food, hotel events, fitness, music, weddings, outdoor activities, wildlife, holidays, and local happenings. The most active ones post about 2-3 times per month, which were plenty.

- 48% of the hotels included a calendar of events on their main site or Face book page.
- A little less than 50% of the hotels include a guide or outside link to local attractions and events.
- Only 24% of the hotels update their Face book photos regularly.

6. Email Marketing: Out of the hotels we looked at, all but seven included an email or newsletter signup on their website. Signing up feature was available for a few of them to get a sense on type of content the hotels were sharing with their subscribers. The content fell into one of three types; special events, promotions and story-telling such as sharing other guest's experiences or through imaginative messaging. Story-telling engages the reader into creating a story of their own.

The most compelling combination of content is story-telling and a promotion. You first pull the reader in, and then you close them with a promotion. Messaging like that followed up with captivating images of families having fun at their resort is a perfect way to engage their target audience (namely families) into embarking on a journey with them.

7. Retargeting: When it comes to low-hanging fruit, it doesn't get much easier than retargeting the visitors that come to ones website and don't make a reservation. Remarkably only 13 of 50 independent luxury hotels analyzed are using it.

Retargeting is quite simple really. One track the visitors to his website and build a targeted list based on their behaviors.

Onehas to use that information to track them around the web showing them banner ads to entice them back to their website. An easy behavior to track would be a visitor who spends a significant amount of time on hotels website but leaves before making a reservation.

There are other behaviors one can track and build a list around - the options are quite enormous. If one build a really targeted list and a compelling call-to-action to bring them back.

8. Travel Directories: It probably comes as no surprise that every one of the independent luxury hotels and resorts analyzedare listed on a travel directory of some sort. But it's important to consider which directories one should be using and for what reason.

Take for consideration a site like Trip Advisor which has a strong foothold in customer reviews. In fact, other travel directories trust it enough to use Trip Advisor reviews on their own sites. While there is little one can do to affecthis ratings on that site, one can respond to the reviews (both the positive and negative ones). According to a survey conducted by Trip Advisor 78% of the respondents said that seeing a response from the hotel management made them feel that the hotel cared more about its guests.

Directories like hotels.com, Travelocity, booking.com, etc. may or may not be a good fit for a luxury hotel or resort because they focus primarily on price and less about the experience, there are other sites like Leading Hotels of the World that maybe a better fit since they specifically target affluent travelers.

In this digital era, nothing is left untouched by technology. It has the power to make or break global market. It strokes the traveler's journey right from the decision-making process to expressing his experience post his departure. Technology has given every guest his voice to share with his fellow global traveler the breakdown or the wow in the hotels CSP – Customer Satisfaction Philosophy. Processes have been altered, and hotels have been revamped to give way to the digital age. Moving past the basic in room necessities, it is indeed not uncommon to see a digitally controlled stay experience with IPOD control panels, interactive mirror TVs, IPAD menu selections, bookings apps and new age tech-TVs. The industry has adapts to technology and has set trying to incorporate it in a manner that guarantees the highest quality of experience for its clientele and a competitive edge.

Every hotel is in competition trying to up their game with the latest technology as well as the most inviting online presence. The aggressive transformation of the hotel selection and booking process from human touch to digital touch has today placed the hotel companies in a scenario where there are great opportunities to reach the global traveler as well as bigger challenges to convince a client on the digital platform on the USP that the hotel has to offer over the competitors. The contribution of online hotel reservation has seen a massive increase in the last 5 years. Hotels have invested big amounts in revamping brand websites which stand as a direct reflection of corporate values and beliefs to the global traveler.

With this paradigm shift towards luxury hotel company's sales & marketing approach, in the times to come, perhaps hotel companies are reviewing the need to engage in large sales force whose primary job was to focus on field acquisition strategy backed by tools of market mapping, product presentations, site inspections, preferred rate contracts, objection handling and entertainments to build one on one relationships. The increase in the last few years of the online contribution to the top line of hotel companies has made the chair that drives digital and online distribution the hot seat. Enhancement of brand website reflects hotel's ethos, a digital tour of the property, effective rate and inventory management in the online platforms like the brand website, OTAs and Global Distribution Systems are the new mantra to meet revenue demands. Ease of the booking process, search engine optimization, tactical slicing of the online data by markets and segments to understanding the buying behavior of the online customer and arriving at an online strategy to manage this diverse demand of the global online traveler forms a substantial part of the KRA of Revenue and Distribution Managers today. Hotel companies are investing heavily towards subscribing independent research and reports that record customer online buying behavior, pattern, and online market dynamics to help them maintain the competitive edge.

Digitization has certainly helped ease the challenges of maintaining guest history & understanding customer preferences. The information forms an integral part of a hotel company's global strategy. Effective slicing of the guest records to deliver and understand the customer needs at a micro level and personalize stay experiences based on country, segment, the length of stay, food & beverage preference, room category preference and channel of booking determines how efficiently the hotel tailor makes a wow experience.

Reputation Management in this new digital world makes or breaks a brand in the global market. Customer recommendations, reviews, and ratings on social media are equivalent to a print advertisement in a lifestyle magazine. Managing social media reviews form a crucial part of a company's digital strategy. A substantial percentage of the global traveler refers to online reviews and rating before deciding their preference of stay.

The hoteliers are tirelessly attempting to understand approach and ultimately delight digitally driven customer segmentation. We have entered an age, which demands an effective "Digital Relationship Management" as the winning edge of a hotel business. A strong and engaging online presence is crucial and staying relevant means staying up to date with the latest innovations in technology.

Hence, chocolates on the pillow aren't enough anymore. The way business is done, truly evolved. The world has moved on from the human touch, the age-old mantra of customer satisfaction and the concept of a service with a smile. A guest is no longer a room number, and one service philosophy no longer fits all. The world traveler today are empowered through technology, they are informed, they research and form an impression, cultures are diverse, speed is of the essence, decision making is experiential, tourists demand a stay which is tailor made to their expectations and personalized to their needs. Above all, they are well traveled, hence can differentiate between the digitally carved screams of opulence and appreciate the genuine whispers of luxury that touch their senses.

Technology explosion is caused by Face book, Twitter, phone and Android. Technology has finally been applied to hotels. Artificial Intelligence, Virtual Reality, Text, Chat are presently prevalent. The rise of digital technology has molded a new kind of traveler, one who embraces available tools and uses them to jump across industrydefined silos. These new travelers do not need handholding; they need the resources and technology to be able to be self-sufficient. They want to be able to make reservations, check-in and plan their trip via a virtual concierge, all while sharing their experience on their social media outlets

Impeccable customer care and efficient operations can give a hospitality related business a decided competitive advantage, and improved technology in the hospitality industry allows these businesses to effect dramatic change in both areas. One

of the most recognized and oldest hospitality businesses in the marketplace today is the hotel. Lodging establishments are not usually known as early adopters of IT advancements, but the tremendous opportunities that exist for hotels and other hospitality businesses because of technology cannot be ignored. Here are some examples of the ways that IT continues to improve hospitality business offerings.

Social Media Marketing and Overlapping Customer Care

Marketing professionals are trained to follow the money, and this means engaging customers where they naturally congregate. Currently, the internet is that place. One the fastest growing tools for internet marketers today is social media. According to a recent survey conducted in 2013 entitled "Worldwide Social Network Users," nearly 25 percent of the world's population uses some form of social media regularly. Any hospitality business that wants to continue staying viable uses social media to forge deeper relationships online with its potential customers. Instead of using outdated outbound marketing campaigns that go largely ignored, these hospitality industry marketing professionals provide valuable information about updated amenities and special promotions to site visitors who are actually interested in what the marketers have to say. However, this newly exploited relationship building tool can be a double edged sword if customers want to complain about a poor product or service in a very public way. The hospitality industry business that exploits social media for marketing purposes must be prepared to answer their new friends appropriately and promptly. The ease and speed of modern internet technologies offer corporate social media marketers a way to hold themselves accountable for customer service issues.
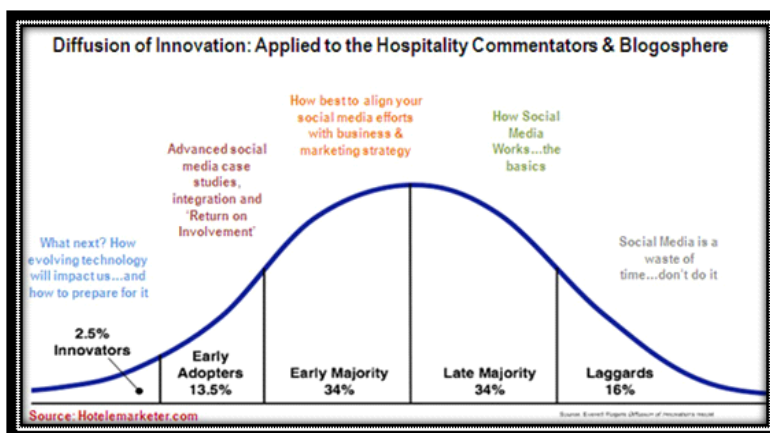
Intelligently Integrated Hospitality Management Systems

Many hospitality industry businesses like hotels and car rental agencies have used some type of customer relationship management system for years. However, the systems are getting more sophisticated which results in improved levels of integration. For example, many hotels can input guest preferences into their databases so that their visitors can have more personalized experiences upon their next hotel stay. These data points include notes about in room beverage choices, the number of hangers used by guests and the temperature on the room's thermostat. Upon subsequent visits, the customer is greeted with their preferred beverages, an adequate supply of hangers and a comfortably temperate room. This type of data can also be linked to the organization's supply purchase systems.

Increase Accessibility with Mobile Devices

Clunky computer hardware has become virtually extinct from most modern homes as desktop computers get replaced with more mobile tablets and smart phones. Many hospitality related businesses find that mobile devices fit their strategic vision, operational methods and budgets better than traditional computers in many cases. For instance, concierges professionals can engage guests from anywhere on the property and take care of their needs in real time when hotels replace the stationary desktops with fast, mobile computing devices. These devices are sometimes less expensive to purchase and maintain than desktop computers.

Online Communication Goals

Like any other goals, online communication goals should be S.M.A.R.T.: (i) Specific goals reflect the objectives of a marketer, when deciding what social media tools to use; (ii) Measurable goals are essential in order to be able to see if the objectives set have been achieved in the end. Goals that sound impossible to reach will not be taken seriously by anyone; hence (iii) Achievable goals should be chosen. Similarly, (iv) Realistic goals refer to taking into consideration all the external factors that could influence the final result. Finally, goals should be (v) Time-based which means a specific target should be attained within a specific time period. Goals are a way to make people more persistent in what they are doing by putting more effort into their actions. As managers do not always have the ability to motivate their employees, setting goals is an alternative to this issue.

Conclusion

In the largely customer driven hospitality industry, the use of technology to speed operations and gather detailed customer information is not optional. This rings true about technology in the hospitality industry for large chain establishments as well as little known, mom and pop hoteliers, restaurants and transportation companies.

The latest trends in Digital Marketing in Hospitality room sales is now focusing on all possible ways to use this mode as the most economical, time saving, efficient, effective and the most popular one amongst all different(alternate) ways of marketing.The most important element in our findings is that now even the hotel guests have adopted this concept and the numbers using digital ways for travel booking is increasing.

By the means of digitization, more and more hotels are now targeting the customers on the basis of their overall duration of stay and the purpose of travel. Attractive schemes, offers, packages and discounts are offered in accordance to this basis. Digital advertising and Social Media marketing are the most common methods of digital marketing used by maximum hotels, be it for the service promotions or the benefits and effectiveness it offers.

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Influence of Digitisation on Economy and Creation of Jobs

*Sreyas Sahai**

Abstract

Introduction: Digitization is radically reshaping business scenes and the substance of work, and also rethinking the limits of creation, conveyance and use. Innovation driven developments are changing both generation and administration divisions through the expanding fuse of counterfeit consciousness and computerized frameworks (online platforms, robotics, machine learning, big data, etc.). These trends render both threats and opportunities for employers and employees, who need to adjust work organization, job allocation and skills.

Purpose: The purpose of the paper is to research the effect of digitization on financial development and its potential for making work openings. Digitization being a key monetary driver in the present world it is imperative to fuse the economy by making advanced markets. Firms, costs and profitability are the three advantages determined by an economy. Researches show emerging economies have more possibilities of gaining advantages of e-commerce than the developed economies as developing economies have wider scope of reducing inefficiencies and increase production. The digitization would enable India to rival the developed economies, to produce business and have a relentless increment in GDP giving financial development to the country all in all.

Research Methodology: The data used to shape the paper is based on secondary data i.e. from journals, research papers, HRD ministry reports and statistical data been used. The cynosure of my research revolves around summarizing the elements of digitalization and interpreting results of this education. This paper will lay a conclusive wall of understanding the socio-economic impact and the obstacles acting as the barriers for sound implementation across the mother India.

Discussion: Digitization is changing business scenes and the universe of work, and rethinking the limits of creation, utilization and conveyance. This has made colossal open doors, as new items, procedures and methods have risen, yet has additionally made dangers, as better approaches for work posture new difficulties to managers and representatives. The general results on work markets are, nonetheless, still exceptionally indeterminate. This research concentrates on the effect of digitization on economy and business. Conventional organizations and ventures and in addition new types of work in the on-demand economy are evaluated.

The discussion accentuates the barriers, strategy, and behavioral approach to emphasize the benefit from the digital economy and derive new opportunities for employment. Digitization has thus major implications for the economy and labour market.

Implications: With the advancing steps of worldwide digitization, it has turned out to be basic to instill this idea in Indian exchange, economy, innovative work in order to keep pace with the worldwide challenges. An examination has been made on the current status of digitization in our nation through data accessible and endeavors have been made to assess the roads of its further proliferation in varying backgrounds in order to discover the gaps coming in the method for formative methodologies and propose redressal measures for greater grimness in Indian economy, at last influencing financial status of our rustic masses. Thorough audit of the present status and hierarchical structure managing digitization in India proposed facilitate scope for fortifying this essential perspective for more powerful e-administration, statistic basic leadership, asset target situated plan and usage of open supported plans to help general development of financially suitable India.

***Keywords**: Digitization, Employment, Economy, Economic Growth.*

Introduction

Over the last year or so, there have been numerous expressions of concerns that digitization, in particular robots and artificial intelligence will replace jobs and increase inequality. These concerns come from the research community, technologists and trade unions and are widely reported in the media. Emergence of digitization followed by proliferation of e-commerce has profound impact on the productivity and socio economic standard of the society. Evolution of technology and associated information and knowledge help establish society's production capacity and standard of living which are

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decisive to the economic growth of the nation (Pohjola, 2001), (M. Castells, 2000). Being a global concept, digitization has prominent impact on economic growth and employment of any nation.

Human capital is a key component to the impact of digitization (Katz, Koutroumpis, & Callorda, 2014). In order to take advantage of e-commerce business, there has to be a proper business model as well as other strategies so that the business is sustainable and provides economic growth (Mafe & Blas, 2006).

Researches show developing economies has more possibilities of gaining advantages of e-commerce than the developed economies as developing economies have wider scope of reducing inefficiencies and increase production (Mirmiran & Shams, 2014). Indian economy has seen unprecedented growth of e-commerce in the last 5 years. Increasing internet penetration, rapid technology adoption and high sale of technical gadgets likesmartphones, tablets, etc, have led to an attractive online customer base. Digitization hasbrought social transformation in the life of common Indians. The present government hastaken up an initiative called "Digital India" for modernization of the society that will connectevery corner of the country.

However, the effect of digitization at macro level in Indian economy is yet to be revealed. With the enormous benefits of digitization come political challenges for the policymakers to set the stage for seamless digitization. Studies reveal that use of internet by Indian SMEs would fetch 32% more revenue and 37% higher employment (FICCI & Nathan Associates Inc, 2013).

Digitization

Overview

The debate on the impact of digitization on economy and society has gained considerably in prominence over the last year or so. One of the reasons for this rise in importance are concerns about the unknown effects of digital transformation on job content, profiles and occupations, and potential inequalities. The social acceptance of digital technologies is a key factor for the success of the digital transformation. Digitization enables higher productivity across the economy, which leads to lower prices, higher real incomes to higher standards of living. It also facilitates the creation of new and better products and services with fewer resources, reduces physically demanding efforts and exposure to dangerous activities in the workplace. Much of this is yet to come. For those embracing this revolution with technological know-how, the digital economy offers plenty of opportunities: for IT-savvy workers, for creative people, for SMEs, for traditional industries, for disadvantaged regions etc.

In the meantime, digitization, as past innovative advances, will likewise have outcomes on work markets. A few occupations will be supplanted, a few employments will be produced, and many employments will be renovated. For the occasion, it is difficult to estimate the job replacement and job creation impacts with any level of sureness. In addition, new employments may not go to an indistinguishable people from the old ones, and may not go to the same geographic territories. Specifically, digitization will change the amount and nature of work required. To be sure, a consistently expanding piece of work can be performed consequently, with restricted or no human contribution. This phenomenon isn't new: amid industrialization, rudimentary, dreary undertakings were computerized. What contrasts now is that less routinely performed and more perplexing errands are increasingly subject to mechanization, e.g. organization. This lessens the demand for low-skilled specifically medium-skilled and even the lower ranks of high-skilled white collar workers that currently perform these tasks. Thus, the rest of the specialists require new, frequently higher, more inventive and specialized abilities. Digitization empowers specialists to do their work all the more adequately. In late decades, it has basically changed the way individuals work, with, for instance, more help from online interchanges and data sharing and in addition mechanical help for data registering, which implies less individuals are expected to play out a similar assignment, yet in addition that the abilities requested of specialists may change, i.e. digitization essentially assumes control basic errands, along these lines specialists must have higher capabilities. The progress towards the more computerized work market can thus be encouraged by advanced arrangements, for example, e-learning.

Indian Overview

Digitization is creating immense opportunities for economies across the globe, and India is an example of a country that not only understands this opportunity, but has welcomed it.

What India has been able to achieve in terms of economic transformation over the past two decades is commendable. Through sweeping economic reforms, initiatives to open up Indian markets to global business and investments in areas like digital technology and Smart Cities, the country has made great progress.

There is proof to suggest that societies and individuals who obtain skills in digital technologies and are enabled to analyze the data generated in digital environment get into higher and higher economic ranks. On the other side, those who remain digitally illiterate are being pushed down the hierarchy. Succeeding governments in India have pressed technological advancements and its adaptation including in the field of computer systems and related technologies— even through an era of very tight technology denials by the developed countries. With the liberalization of economy since 1991, the public sector and the private sector together have placed India in an enviable position of extracting

useful products of value with the application of computers. Resultantly, this has produced employment for 2.5 million and fetched export earnings to the tune of US$87 billion. Riding on this firm base, the UPA led government foresaw e governance and a digitally connected India. Forwarding this vision, the Modi government has widened the scope and launched the Digital India Programme in 2014, which is scheduled to be completed by 2019. This would result in quantum leap in GDP, thereby extending employment opportunities.

"Digital India" is an initiative of the Central Government of India "designed to transform India into a global digitized hub" by reviving a rundown digital sector of India with the help of improving digital connectivity and skill enhancement and various other incentives to make the country digitally empowered in the field of technology.

The Government of India aims to achieve growth on numerous fronts with the Digital India Programme. Particularly, the government aims to target nine 'Pillars of the Digital India' that are:

- Broadband Highways
- Universal Access to Mobile Connectivity
- Public Internet Access Programme
- e-Governance – Reforming Government through Technology
- eKranti - Electronic delivery of services
- Information for All
- Electronics Manufacturing
- Digital or IT for Jobs
- Early Harvest Programmes.

Even during the process of application there would be hiatus not related to technology and its application, but for completely discrete factors such as cultural and societal, sharpened by the action of those who see their role and influence declining as the process of digitization gets underway.

Digitization of Indian Economy Owing to Demonetization

Demonetization has prompted a boom in the use of e-wallets, and plastic cards as a method for payment. Such digital payments have in a major way replaced cash transactions at least in urban areas. Many financial specialists and socio-political scientists likewise trust that the nation's way to digitization was smoothened and the time to accomplish a cashless society has been reduced.

The path toward digitization in India started with the e-commerce start-ups, such as FlipKart, Jabong, SnapDeal etc. These e-tailers helped begin the process of weaning customers to online channels in the country. Most of these e-tailers conduct the major proportion of their business through cash, but what they did do and is continuing to do is familiarize people with the convenience of online channels and cash less transactions.

While there is no evidence of e-tailers benefiting after about 86 percent of the currency in circulation by value in India was withdrawn, business at e-wallet firms, have grown. According to media reports, including in the Economic Times, transactions in e-wallet companies had increased by more than 700% in the first few days after demonetization.

Not just in India, but in other countries as well; although, the rate of adoption varies. In countries, such as the US and Netherlands, a large proportion of the transactions are through digital modes of payment, while in others, such as Italy, cash retains its paramount position. In India, many people in rural areas and the informal sector do not have bank accounts. About 40% lack access, according to different reports, despite the government's efforts to improve financial inclusion.

However, the internet and the sharing economy cannot be wished away in our country or overseas. As internet penetration and connectivity increase, the digitization of the economy is a natural progression.

As indicated by a Google and The Boston Consulting Group report, Digital Payments 2020, the total payments made through digital payment instruments in India are probably going to be about US$500 billion by 2020, which is 10 times the present level. The report likewise indicates that non-money exchanges, which presently constitute around 22% of all consumer payments, will surpass money exchanges by 2023. 154-crore Indian e-wallet advertise is probably going to develop to Rs. 30,000 crores before the finish of 2022, as indicated by a report by ASSOCHAM.

The Challenges of Digitization For Employment

Job Replacement

In the digital transformation of the economy, certain types of jobs may be replaced. A recent OECD paper put the headline figure at 9% of jobs which can be automated.

Three years ago, a debate on the future of jobs began after the publication of a study which estimated that 47% of jobs in the US were in danger. However, this approach has since been criticized because it treats jobs as either automatable

or non-automatable. In reality, most jobs are somewhere in between: jobs consist of tasks that can be automated and others tasks that cannot. The new OECD report arrives at the figure of 9% by taking this into account and following a task-based approach.

Recent research has found that after a recession, employment continues to recover at the same pace as it always does. Moreover, some industries who have experienced more automation such as financial intermediation or retail trade have not undergone slower employment recoveries in comparison to other sectors.
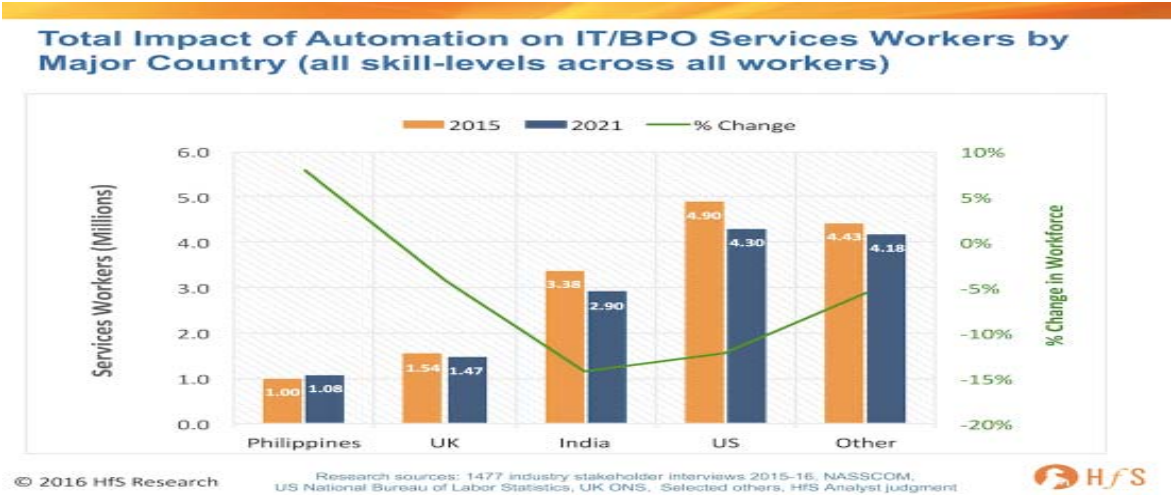
Source: Google

Despite a high degree of uncertainty as to the size of job replacement, the impact of digitization on job creation/job replacement will affect far fewer people than the transformation of current jobs (where some of the tasks will be automated and other tasks will be added). This is because digitization affects virtually all jobs, from the farmer who digitally monitors soil humidity to the teacher accessing online educational resources.

Projected net job creation from digital initiatives in logistics (2016-2025)
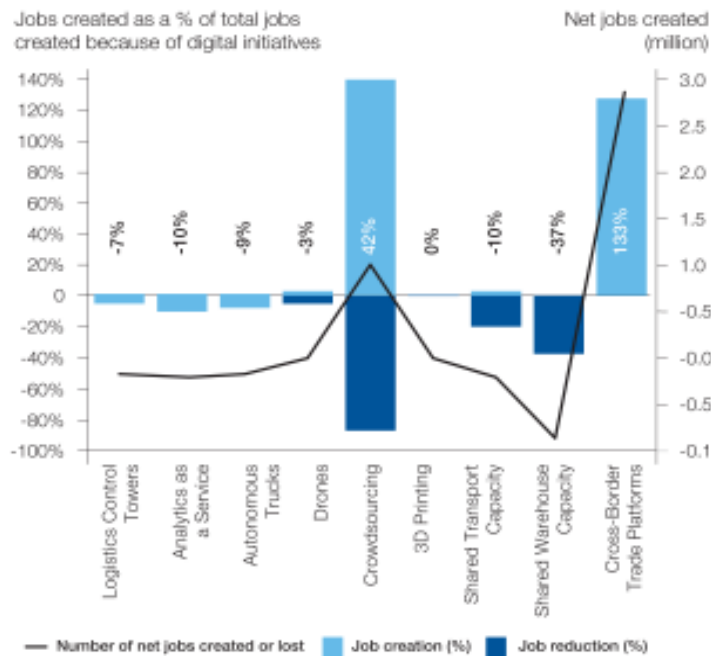
Source: World Economic Forum / Accenture Analysis

But clearly there will be both winners and losers – as the graphic shows, while the net impact on jobs in the logistics industry could be positive, many sectors will experience job losses.

In short: Digitization will result in the replacement of some jobs, especially in the middle of the income distribution, leading to job market polarization. Even in the best scenario, there will be transition challenges to manage linked to the future organization of work.

Challenges to Employees and Employers

At 8 pm every day, 200 young technicians at pathology giant thyrocare technologies begin work at its automated clinical chemistry laboratory at turbhe in navi mumbai. For the next 12 hours, they operate a range of state-of-the-art diagnostic equipment, which can process up to 200,000 investigations a night for thyroid, kidney and liver diseases, testing nearly 45,000 samples flown in from 1,300 collection centers in India. What would have taken several days of investigation by at least 1,000 technicians a decade ago is now being done by a workforce a fifth the size in less than a day. "many job-seekers are qualified for the job, but not skilled," says a. Velumani, the company's CEO, who ensures freshers are given specialized training. The new challenges are exciting and even lighten the manual load, but that's for a lucky few. For the majority of jobseekers in the healthcare segment, the prospects are grim, with little job security and salaries roughly half what large diagnostic chains may offer.

The situation has only worsened since, thanks to weak industrial growth, a struggling agriculture sector with widespread drought, cost rationalizations in several sectors and the knock-on effect of a global slowdown. Also, traditionally labour-intensive industries are beginning to increasingly mechanize their operations. While it makes them more productive and profitable, it also shrinks job opportunities.

According to the labour ministry's Employment Survey employment in export units, reeling under shrunken global demand, also saw a sharp decline. There were only 5,000 job additions in the first half of FY 2016 compared with 271,000 in the corresponding period of FY 2015. In the automobile sector, for instance, there were 23,000 job losses in export units compared to the 26,000 job additions in the other seven labour-intensive sectors in the second quarter of FY 2016.

"The growth rate in jobs has distinctly slowed down with significant improvements in automation and productivity," says Rajeev Dubey, group president, HR & Corporate Services investments in automation."

Digital technologies fundamentally transform organizations, with the pace of technological change exacerbating the challenge. Organizations must have a coherent strategy that includes a plan to reskill workers. Whereas previous technological revolutions (most notably the industrial revolution) played out over a relatively long period of time, the speed of digital transformation is such that businesses need to move quickly. For governments, the challenge is equally pressing. The potential inequality and wage deflation or even social unrest requires urgent action to prepare the workforce for a digital future.

Current estimates of global job losses due to digitalization range from 2 million to 2 billion by 2030. There is great uncertainty, with concerns also about its impact on wages and working conditions.

Digitization Impact In India: Job Losses and It

Technology leaders are drumming up the thought that the emergence of new technologies such as artificial intelligence (AI) and automation are going to be the new drivers of employment, especially for India's $150 billion information technology (IT) industry that now employs about four million people.

Automation threatens 69% of the jobs in India, while it's 77% in China, according to a World Bank research. If automation is not planned well and addressed holistically, it is a disaster in the making. There is no doubt about that. It is going to affect 60%-70% of the current jobs. They will either get marginalized or totally eliminated. The transition will happen in a decade and not in 50 or 100 years.

India's IT services industry is set to lose 6.4 lakh low-skilled positions to automation by 2021, according to U.S.-based HfS Research. It said this was mainly because there were a large number of non-customer facing roles at the low-skill level in countries like India, with a significant amount of "back office" processing and IT support work likely to be automated and consolidated across a smaller number of workers.

According to online professional training company Simplilearn, the era of digitization and automation will create newer career choices for IT professionals. The new job roles that will dominate the IT workforce are within digital domains such as big data, artificial intelligence, Internet of Things, cloud computing and cybersecurity.

While there is a risk to jobs due to these trends, the good news is that a huge number of new jobs are getting created as well in areas like cybersecurity, cloud, big data, machine learning and AI. The impact of automation is not just limited to the country's information technology industry but other areas as well such as agriculture. Tata Group is exploring use of automation to improve the lives of the workforce and bring in efficiency. The group was working on a precision agriculture technology where an unmanned aerial vehicle or a drone can be used for aerial spraying on farms.

Companies like Skylark Drones, a Bengaluru-based startup is providing its unmanned aerial vehicles to enterprises for services such as land surveying, power line inspection and monitoring of construction, pipelines and crop health.

Role of Government

Governance Impact

Correlational investigation shows that more prominent digitization empowers a general public to be more transparent, expanding public participation and the administration's capacity to spread data in an accessible way. Advanced innovation gives the populace more understanding into government approaches and work a knowledge that may, thus, prompt more

dynamic political cooperation and bolster the improvement of human rights. Also, of course, e-government supported organizations are more compelling in a digitized domain. Higher digitization adds to more productive conveyance of e-taxpayer driven organizations, while better e-taxpayer supported organizations animate an expansion in digitization.

At last, digitization bolsters better conveyance of essential government supported organizations, for example, government funded instruction. Generally speaking, investigation shows that digitization positively affects financial headway, societal prosperity, and government viability, in spite of the fact that this effect differs as per a nation's level of digitization. Digitization increasingly affects the economy and personal satisfaction as nations progress through the phases of digitization, and more effect on access to essential administrations and instruction in nations that are simply started their journey.

The Growth Without Jobs

Many ask why an economy apparently developing at a rate of more than 7% isn't making enough employments. Financial analysts say this is on the grounds that more work is currently being finished with less representatives. "The economy is generating less jobs per unit of GDP," says D.K. Joshi, chief economist at ratings and research firm Crisil.

Others blame higher levels of automation for the job squeeze. "The growth rate in jobs has distinctly slowed down with significant improvements in automation and productivity," says Rajeev Dubey, group president, HR & Corporate Services investments in automation."

The BJP, in its election campaign, highlighted the past government's inability to make employments, repeating that while the UPA could make just around 1.5 million occupations a year on average in the 10 years it was in control, the prior NDA administration had made more than 10 million a year. Likewise, one guarantees the BJP made in the run-up to the 2014 race was that it would make 10 million employments every year.

Responses to Digitization

Lately, there has been a great deal of level headed discussion on how local and national governments could or should react to the difficulties and openings induced by digitization. In any case, in spite of expansive enthusiasm for these subjects and worries of potential unfavorable impacts as communicated, for instance, by endless blog articles and conclusion pieces, regarding scholarly work and strategy archives scarcely any data is accessible to illuminate the civil argument. Besides, most discourse in the general media gives off an impression of being centered around the on-demand economy instead of digitization and its suggestions on economy and employments. Besides, when digitization is talked about, the attention is normally on efficiency, business procedures and development.

Equally, as important as creating digital infrastructure is teaching citizens how to make the most of it. The government has implemented a programme to equip 400 million people with skills for the future by 2022. These types of programmes are crucial to keeping the country competitive and ensuring inclusive economic growth, as skilled workers currently only account for 2 percent of the Indian workforce today.

Contextual Investigation: Skills Future in Singapore

Since November 2015, Singaporeans have approached the SkillsFuture Credit course catalog to investigate the scope of abilities based courses, which will be qualified for SkillsFuture Credit. The index, some portion of the SkillsFuture Credit entrance worked by Accenture and propelled on 1 January 2016, was discharged ahead of schedule to create premium and empower qualified Singaporeans 25 years of age or more to design their learning plan. The courses on offer are subsidized and additionally conveyed by a scope of key partners including the Singapore Workforce Development Agency, foundations financed by the Ministry of Education, the Infocomm Development Authority's Silver Infocomm Junctions and other open organizations and conspicuous online course suppliers, for example, Coursera.

The Benefits of Digitization For Employment

All the negative concerns need to be weighed against the positive impact of digitization on labour markets. Digitization reduces costs for setting up a business and finding employment. It also creates opportunities for small companies to innovate and grow faster (by making it easier to distribute products, market services and reach a global audience).

In this context it may also be useful have a closer look at specific groups of workers who are impacted by this new phenomenon. It is particularly important to consider the implications for women; whose employment rate remain considerably lower than men's employment rate (64.3% vs. 75.9%). Technology could make jobs more accessible as they lower some of the physical and social barriers to entry, and facilitate flexible work for both men and women. Nevertheless, there remain significant challenges because women are significantly less represented in Science, Technology, Engineering or Mathematics related academic and educational fields. Targeted efforts are needed to attract girls into these sectors which offer good job perspectives. Female participation is crucial and necessary if we are to increase the total number of ICT specialists.

For example, in the context of the rapidly ageing population in the developed world, one of the sectors likely to benefit most from this development is the care sector. Healthcare workers currently account for 17.2 million jobs in the EU28,

and one million new healthcare jobs are projected by 2020 and an additional 7 million job openings are expected due to replacement needs.

In short: Digitization creates many well-paid new jobs for ICT specialists, and even more jobs in other fields of the economy. New forms of jobs create new situations to which our welfare states might not, yet, be equipped to deal with.

Conclusion

Digitization has been viewed as a conceivably essential driver of development and monetary development, offering ascend to new strategies, methods and information that expansion effectiveness and efficiency and take into consideration the origination of new items and administrations. Digitization is relied upon to both make and wreck occupations, however it stays to be seen what the net effect will be.

There is constrained information accessible on the effect of digitization and the on-request economy on work markets and work relations. Besides, the information that do exist are different. Hence, momentum writing on these subjects is likewise genuinely constrained, however the exploration field is quickly progressing.

Likewise, with past industrial revolutions, digitization is probably going to have two noteworthy results for undertakings and laborers. From one perspective, new innovations and information investigation empower undertakings to upgrade their effectiveness, raise work profitability and supplant exercises, which is probably going to prompt a decrease in occupations. Then again, it will empower new endeavors and exercises to create, which produces employments. ICT developments and multi-sided stages are additionally profoundly changing customary enterprises as a positive circle coming about because of troublesome advancements, pushing officeholders to overhaul their plans of action, in which information assumes a key part.

The challenge of skills is dual: setting up the work power without bounds and in addition guaranteeing that the present work power can acclimate to changes in the work advertise. Deep rooted learning will probably turn out to be considerably more critical later on.

Little is thought about the effect of digitization on conventional organizations and ventures. There is an absence of accessible information to contemplate digitization and the on-request economy, which brings about a generally low number of confirmation based investigations, while the information, gauges and concentrates that are accessible point to shifting conclusions in light of various suppositions. Another issue is that digitization and the advancement of the on-demand economy are quick paced and still especially in advance, which confuses examination. Additional observing will, accordingly, be required to reach more complete inferences on the effect of digitization on economy and making of jobs.

Digitization creates monetary development. As this is another advancing pattern, there are no dependable conjectures yet on the net employment impact. In any case, the aggregate gross activity creation will mostly be balanced by employments relocation. Automation could make certain occupations more appealing and enhance the prosperity of laborers. Instead of exposing people to health risks and ecological dangers, robots could embrace the slightest appealing, most physical, and unsafe occupations.

Digitization is still toward the start however it will bring colossal monetary and societal advantages. It likewise can possibly supplant certain occupations, and furthermore makes occupations and work openings, regularly generously compensated ones. All the more significantly, be that as it may, it will change business, both by changing the aptitudes prerequisites for most occupations and likely by significantly re-engineering the present ways that work is composed in our social orders.

India should concentrate more on growing locally drove network, advancing examination and advancement drove improvement to set up itself unequivocally on the global stage as a financial superpower and especially a flourishing mechanical center point.

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Social Media Marketing and Its Influence on Entrepreneurship

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Abstract

Social Media Marketing is a process of getting visitors to the websites and mobile apps with the help of social media platforms like Facebook, Instagram, twitter, etc. The objective of this research paper is to show how social media platforms are helping startups, online and offline businesses to increase the sales of businesses, their customer relationship and the market size one can attain with the help of social media platforms. In this research paper, we have shown how startups with limited resources can sustain in the market by using social media platforms, how their marketing strategies change with the evolution of social media platforms. According to a report provided by Stastia.com (Leading statistic company on the internet), a total number of Facebook users crossed 2 billion by the end of 2017 Quarter; Twitter crossed with 330 million active user accounts per month, 800 million monthly users on Instagram, etc. These stats are enough to show the potential of social media platforms and how it could help small as well as leading brands to create a brand image among their potential customers. Based on the email interview with 5 Social Media Consultants based in Delhi, Co-founders of Startup that are majorly dependent upon social media platforms, and the survey 100 social media users, we found how social media marketing is affecting the brand new businesses either positive or negative way. Additionally, how much time an average individual spend on social media daily,that is required to find the active audience on these platforms.

Keywords: Abstract, Social Media, Startups, Social Media Consultants, Audience

Introduction

This research paper would intend to learn the effect of social media platforms on startups and the rise of entrepreneurship. The use of social media platforms has been increased exponentially in the past one decade. According to our research, an average human being spends up to four hours of his day on social media platforms. It forces the startups to think in a new direction and much new online business idea generated in past one decade that includes online food ordering, Online shopping, Online property rentals, etc. and much more is coming.

Social Media

Social media and networking are all computer-mediated engineering which eases the sharing and creation of all information, thoughts, livelihood interests and also other kinds of saying via virtual communities along with networks. With the help of Social Media platforms, you can enable the exchange of thoughts, ideas and much more. One can develop new connections and nurture them with the support of social media platforms. The most common social media platforms we use these days is mention below

- Facebook
- Twitter
- Snapchat
- Instagram
- Linkedin

Entrepreneurship

The fundamental entrepreneurship definition may be that the action of making a company or companies while scaling and building it to build a profit. But, entrepreneurship is also about changing the world by solving big issues. Like initiating social change, establishing an advanced product or introducing a brand new life-changing solution. It can even help lower unemployment levels through project creation to decrease poverty. It's all about building a lifetime all on your terms. No supervisors. No restricting programs.

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Social Media Platforms

There are the different types of social media platforms are available, for our research, we have taken specific social media platforms into account that are mentioned below:

Facebook

Facebook is an America Based social media platform started in 2004 by Mark Zuckerberg and his fellow students of Harward University named Eduardo Saverin, Andrew McCollum, Dustin Moskovitz, and Chris Hughes. Initially, Facebook was built for Harvard students only, but later the founders realized its scope and took it to a global level. Presently Facebook has total Audience of 2 billion users. Eight years after their inception, Facebook launched its IPO for the first time in 2012, and in the present era, the use of Facebook goes beyond the building connections.

Presently, Facebook is helping businesses in generating additional sales, improving customer experience, building communities of like-minded people and much more. The users of Facebook are increasing cumulatively every year. Many online businesses are based on the Facebook on platforms. It includes the viral pages, blogs like Wittyfeed, Buzzfeed, etc.

Twitter

Twitter is a San-Francisco based social Media platform founded by New York University undergraduate students in 2006. It was founded by Jack Dorsey, Noah Glass, Biz Stone and Evan Williams. Presently the user base of Twitter has crossed the mark of 100 million users and is helping brands in improving the customer interaction and customer relationships. It is online social media platforms that enable users to post the message in the limit of 140 characters only that later changed into 280 characters for certain accounts. These messages are known as Tweets. According to Wikipedia, More than 340 million tweets are regularly posted after 2012 and number keeps on increasing. After seven years of inception, Twitter launched its IPO in 2013 with 70 million shares.

Presently Twitter is helping Bloggers, Politicians, Big Business Brands, etc. in addressing their customers, growth hacking, Social Media Monitoring, Customer redressal, and maintaining customer relationship too.

Snapchat

Snapchat is an image messaging mobile application that has been launched back in 2011 by Evan Spiegel, Bobby Murphy and Reggie Brown the former students belonging to Stanford University. It is available for IOS, Android and Windows Mobile only. You can't use the same app on laptop or in desktop. As of Now it is available in more than 20 languages. The app has evolved from originally focusing on person-to-person photo sharing to presently featuring "Stories" of 24-hour chronological content, along with "Discover" to let brands show ad-supported short-form entertainment.

Linked in

LinkedIn is a social media network intended to build professional network of personnel working in different domains. The main purpose of LinkedIn is to help users looking for B2B social connections. It has been founded in 2002 and is available in form of website and mobile app for all the platforms. The main source of revenue for LinkedIn is by selling information of LinkedIn users to recruiters and sales professionals. LinkedIn has 106 million active users across 200 countries by 2017 and total of 500 million users. It is based out in California and launched its IPO in 2011, 9 years after its inception. Later in 2016, LinkedIn got acquired by Microsoft

Instagram

Instagram is an image sharing platform that is enable for mobile, desktop and PC users. It has been launched back in 2010 and later acquired by Facebook. It was developed by Kevin Systrom and Mike Kreiger and initially it was available exclusively for IOS users only. Later it has been introduced for android users too. Presently it is one of the famous app among mobile users with the user base of 700 million active accounts. It is useful for brands who are into the selling of fashion Products, Restaurants owners, etc. Instagram got popular among users very soon and 1 million users installed instagram within a month of inception. In 2012, Facebook acquired instagram for 1 billion$ cash and some stock.

Important Factors to Keep in Mind While Social Media Platforms For Your Business

1. **Community Building**- To get leads initially, you need to deliver them valuable content at first instead of dropping your sales proposal directly. Once you start deliver great information and content to your users, you will be automatically able to generate revenue out of it. To provide that, you need to build a great community of users from all around the web.

2. **Turn Around Time (TAT)** –To get any business flourished, TAT plays a crucial role. Social Media is different from branding via newspapers, television and radio where one can expect results after a period of time. But on social media, Turnaround time should be quick. A Blog Post, Twitter, LinkedIn or Face book campaigning should be operated as per the stipulated time of delivery or leads.

3. **Engagement**- Social Media networks are all about community building and providing the valuable content in which your target audience takes interest. Make sure your customers get interested and respond towards the information you are providing to them. If they are not responding, it means they are not interested in your content. Hence to get engagement and sales, you need to build an active community of like minded people by delivering content of user interest with some value in it.

4. **Driving Sales-** To drive sales for your business and even for personal promotion of an individual; daily content marketing and advertising over Social Media tools have a major role to play. Face book, Twitter, Instagram and Linked In campaigning influence audience and drive enormous amount of sales. When advertising happens over social media then a marketing team should be clear about return of investment (ROI).

Methodology of Research

This section of research contains the detailed description of methodology of research method we used to conduct the research. At the end of this chapter, you will get to know about all the data we have taken into account to conduct the research paper.

Type of Research Conducted

Ethnographic Research: The research type we conducted falls under ethnographic research. Ethnographic Research is a qualitative research method that earlier used by Social Scientists or anthropologists, but from past couple of years it has been also used by Marketing executives of any organizations while formulating marketing strategy for their organizations. Ethnography is a study through direct observation of users in their natural environment rather than in a lab. The objective of this type of research is to gain insights into how users interact with things in their natural environment. In our research problem, we are trying to figure out the impact of social media platforms on businesses either for positively or negatively.

Under this research, we conducted 2 email Interviews and 1 Online surveys. All the graphs and interviews are given at the end of paper.

Qualitative Research: It is a social science research methodology which we use we are not able to quantify the data we have in form of Number, charts and data. The email Interviews falls under the qualitative research methodology.

Quantitative Research: Quantitative methods stressed upon objective measurements or the data that can be counted. It is the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques

Type of Data Used: We take primary data in our account to conduct the research. We conduct a survey of 100 people, to whom we ask few questions to identify their online behavior.

We conduct an email Interview of 5 startups based out in Delhi- NCR, Mumbai and Bangalore who are majorly dependent upon social Media platforms and online marketing to run their business. Their experience and estimates about social media platforms will help our readers to take an idea that how their business will grow with the help of social media platforms.

We also conduct an email interview of 5 social Media Agency who provide social media marketing services and other online marketing services. The central theme behind their interview is to estimate which social media is popular among their clients. What is their belief regarding their businesses etc.

Sampling Type: Research paper is entirely based upon the primary data type and the method use for sampling is convenient sampling.

Convenient sampling is a technique of sampling where we take sample randomly according to our ease and convenience.

Sample Size: We conduct an online survey of 100 users

We conduct an email interview of 5 social media agencies that are in business of online marketing. These Marketing agencies are (OxPro Media, Youstable Technologies, Clickretina, Techxus, and Geexfy)

We conduct an email interview of 5 startup representatives who are majorly dependent upon social media. It includes (Carpiko,Segment One, Medlabz, Treyolo and Scribbify)

RESULT

This chapter consists of results based upon the email surveys and email interviews we conducted. Results for them are mentioned below:

Online Survey

- In our sample size of 100 people, 67.6% respondents are students, 23% students are in regular job while 8.8% has their own business

- The majority of respondents in our survey are between the age of 18-22 years that is 47%, while 23% of respondents are between the age of 23-27 years, 8% respondents are 28-32 years, nearly 4% people are between 33-37 years, and 7% people are more than 38 years
- Nearly 40% of our audience use more than 3 social media platforms while 10% people use only 1 platform
- The most used social Media platform is Facebook with 32% users followed by Youtube with 27% and instagram with 19%
- Nearly 80% respondents use social media up to 8 hours in a day
- 98% of respondents are using social media platforms
- 30% of respondents do online shopping frequently, while 13% of respondents never bought anything online
- 80% of respondents inquire for online services at least once in life time
- 91% of respondents use Google maps or any other navigation services

Online Interview (Startups)

Below we have mentioned the name of companies whom we have surveyed and their results:

Carpiko

Carpiko is an online automotive sector startup that provides door to door car servicing. One can book for car servicing using their app. According to them social media helped them a lot that help in growing their business by 5 times. Their expected audience size is 24 lakh+ car owners of Delhi-NCR. Presently they are using digital marketing services only to grow their business. Nearly 80% of their revenue comes from Social Media Platforms and other digital marketing platforms.

Segment One

Segment one are making a SaaS product that can help further in email automation tool. Presently, they are using SEO, Inbound marketing and Digital Marketing practices to grow their business further. They are targeting 500 small business clients for next 1 year and 20,000 clients in next 5 years. Apart from social media, they are using Cold emails and cold calling in order to generate more business for their organization. Presently they have B2B business model. They have not found social media much helpful and generated 5% revenue with the help of social media.

Medlabz

Medlabz is a medical diagnostics platform that is currently based out in Mumbai and Hyderabad only. They are B2C type startup that is majorly relying upon Social Media and search engines for their growth. As of now their audience size is 2 lakh users and they are planning to expand in 6 cities with the target of 15 lakh people annually. Besides, Social Media they are also focused upon Tie-ups with premium hospitals and health organizations. According to them, online diagnostics platforms are heavily dependent on social media for discovery by the customers when they need the services. In addition they are looking to grow social media communities around health to build our brand. At present they are able to generate 30% of their revenue using social media platforms.

Scribbify

Scribbify is a content marketing agency that provides content marketing services to ebook writers, Websites, Mobile Apps etc. According To Rachit, the founder he said social media platforms are helping them a lot to bring businesses. Apart from social media platforms they are also running a referral program where they are providing commission to those who recommend their services. Most of their clients come from online mediums. Most of their deals are discussed over facebook and skype and nearly 50% of their revenue come from social media platforms.

Treyolo

Treyolo is catering fashion market. Their customers are fashion brands and designers who are active in fashion market. They are mostly using instagram to fetch fashion data and it is helping them a lot. Treyolo is under B2B maketing due to which they avoid social media platforms like Facebook and stressed more upon LinkedIn. Apart from LinkedIn they are using cold calling, cold emails etc. to convert new deals. Their expected market size is 45B$. For them Social media is a goldmine for them to get data related to fashion. Their experience on social media to get clients is not so up to the mark and they found it costly.

Online Email Interview (Digital Media Agency)

Below we have mentioned the name of companies to who we surveyed and wrote their opinion below:

Youstable: Youstable Technologies is in Web hosting industry and they also provide other online marketing services. They are presently based in Lucknow. They are 7 years old organization and presently working with 10 persons. According to them, their clients primarily concerned about Facebook and then they ask about other social media agency. According to them within a decade search engines and social media will be an optimum choice to use for any offline business.

OxPro Media: OxPro Media is a Delhi based digital marketing agency that provides Web Development, SEO, SMO, SEM services. They have team size of 14 people working with them. According to Oxpro Media representative, their client look for Facebook more when they are looking for B2C while they are more stressed upon LinkedIn more when it comes to B2B marketing. According to them, prediction of next decade is tough since the industry is very dynamic. Social Media is very important as it helps in promoting the conversation between brands and its users.

Techxus: Techxus is 2 year old digital marketing agency based out in Delhi- NCR. They are offering complete digital marketing services and they have a team size of 8-10 members. According to them, Facebook helped them a lot to acquire new clients and expand their business. According to them social media has immense potential in near future and it is essential to validate your brand. Social media marketing is helpful in validating the brands and increases the customer loyalty. The scope of social media marketing will increase in near future.

Geexify: Geexify is 7 years old digital marketing agency based out in Bangalore. They offer complete digital marketing services from SEO to SEM and other advertising services too. They have a few members in their in-house team and have freelancers too. Their clients are more focused upon facebook and instagram. According to them social media has immense potential and if one is not able to realize its potential now, you may only regret in future. According to them importance of social media could not be neglected because it is the best way to study the behavior of your audience. If one is not using the social media to study their audience you are missing a lot of things.

Clickretina: Clickretina is a 2 years old digital marketing agency based out in Lucknow. They are offering complete range of digital marketing services. It includes SMO, SEO, and SEM etc. Their team size is of 5 members and they are highly concerned about facebok since most of their clients come from facebook for them. According to them, Social media has immense potential and sooner or later it will become the integral part of everyone's life. According to them, social media has different utility for different people but it is important for all.

Conclusion

Social Media has an immense potential for any kind of business. Predicting what is going to happen in a decade is tough but it is quite sure that social media have immense potential and it will become the integral part of our life. In past 1 decade online shopping becomes an important part of our life that is going to increase in future soon. If you are in B2C then facebook and other social media platforms is a great source of revenue but on the same side, if you are in B2B social media is not something you can rely upon. LinkedIn is great source of getting customers when it comes to B2B products. Listing your business on google maps is an important step as almost more than 95% people use navigation services.

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6   http://www.geexfy.com/
7   https://www.medlabz.com/
8   http://www.oxpromedia.com/
9   https://scribbify.com/
10   https://segmentone.co/
11   http://www.slideshare.net/
12   http://techxus.com/
13   https://www.treyolo.com/
14   https://www.youstable.com/

Graphs and Charts

Count of What is Your Profession

Business Man 8.8%
Regular Job 23.5%
Student 67.6%

Count of Gender

Female 39.6%
Male 60.4%

Count of Age Group

13-16 1.0%
13-17 9.8%
Above 30 6.9%
28-32 8.8%
18-27 23.5%
18-22 47.1%
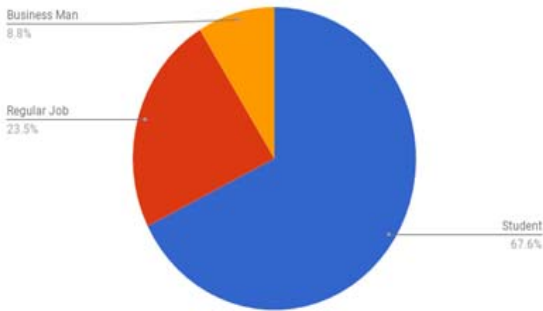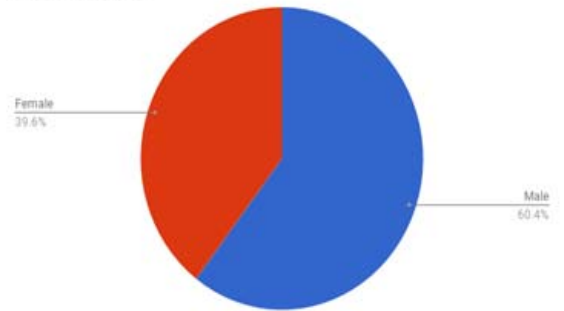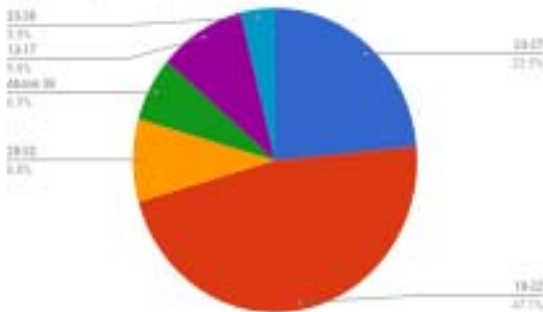
Histogram of How many Social Media Platforms you use

How many Social Media Platforms you use (count)
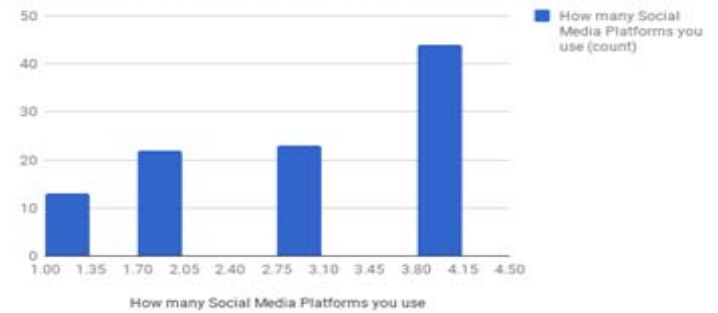
Count of Which Social Media Platforms you Use More

Snapchat 12.7%
Twitter 7.8%
Instagram 19.6%
Facebook 32.4%
YouTube 27.5%
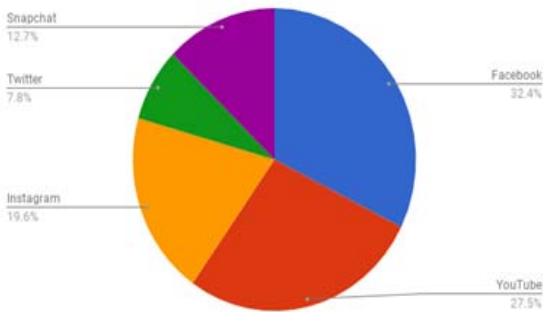
Count of How many time you spent on social media in a day

More than 14 Hours in 2.0%
8 to 14 Hours in a day 11.8%
4 to 8 Hours in a day 31.4%
Less than 4 Hours in a 53.9%
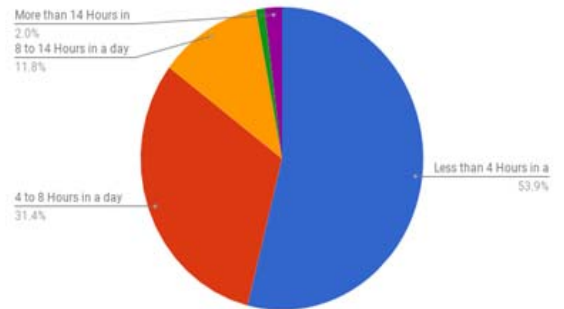
Count of Do you have a social Media Account

No 2.0%
Yes 98.0%
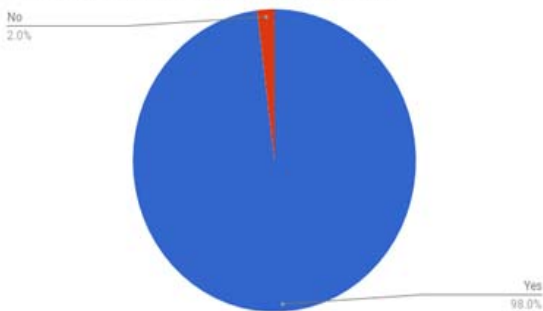
Count of How Frequently you do online shopping

Rarely, Occassionaly 1.0%
Never 13.7%
Frequently 30.4%
Rarely 24.5%
Occassionaly 30.4%
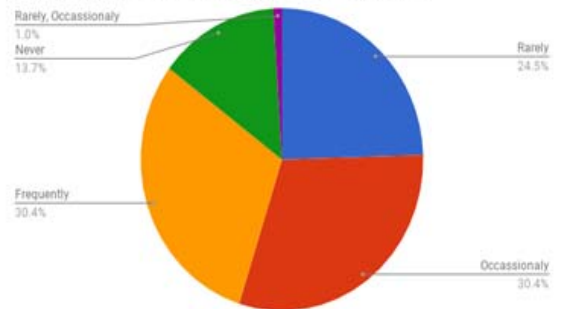
Count of How Frequent you inquire any online service
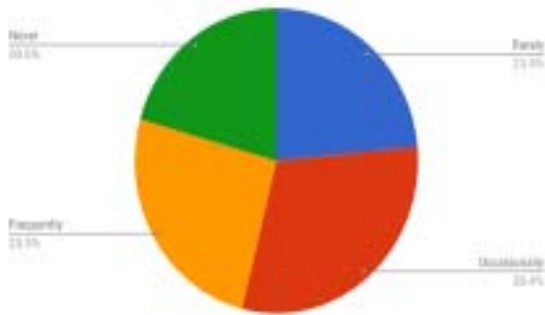
Count of Are you using Google Maps or any Navigation services
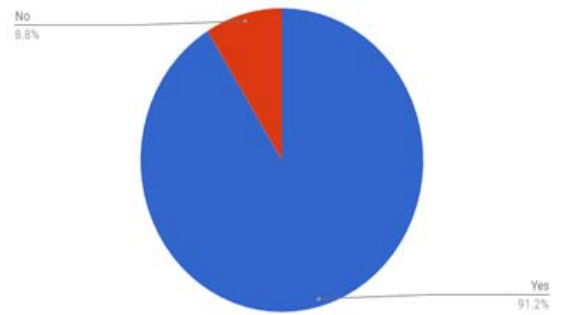
Questions of Email Interview for Startups
1. What is your Business Domain and how Social Media and online marketing is helping you?
2. What is the expected audience size of your business?
3. Apart from Social Media and online marketing what are your other methods of getting customers
4. What is the scope of social media for your business according to you in next 1 decade
5. What percentage of revenue you are generating presently with the help of social Media

Questions of Email Interviews for Digital Media Agencies:
1. What is the name of your company and What kind of service you are providing?
2. What is your team size and how old your company is?
3. For which social media platform your clients are highly concerned?
4. What is the scope of social media for your business according to you in next 1 decade
5. Why Social Media is important?

Automations –A Dream or An Upcoming Reality For India

Harsh Jain* & Rachit Singh*

Abstract

Automation simply refers to the adoption of automatic systems and robotics in order to make sure an activity is performed automatically without human interference or support.

The earliest usage of automation can be dated back to automatic water clocks and hydraulic statues used by the Egyptians to produce sounds and gestures. Since then, the concept of robotics has evolved and has been extended to what is today termed as 'Robotics and Automation' and has been achieved by including various means like mechanics, hydraulics pneumatics and electronic devices.

Over the years, with the tremendous development in the field of technology, businesses have been shifting towards adopting automation for efficient cost reductions that too without affecting their productivity, today automation is practiced in nearly every type of industrial and assembly process. Some of the larger processes include electrical power generation, oil refining, chemicals, steel mills, plastics, cement plants, fertilizer plants, and pulp and paper mills.

The application of robotics or automaton can also be seen in a number of areas like driverless cars, defence systems, disaster management, chat bots and many other tasks that humans can't perform.

Automation is an inevitable part of any human civilisation at any time as when humans come together to work; they tend to find easier ways of doing things. Like in early ages of human civilisation, the pulley systems were developed to simplify the movement of heavy things from one place to another. Similarly, looking at an example from the modern world, automatic robotic arms are used in factories and production houses in order to reduce human efforts.

The following paper, keeping in mind the huge potential of automation, outlines the history and evolution of the concept of automations. Not only this it also highlights the pros and cons of the adoption of robotics. Also, the paper throws light on the tremendous opportunities that automations open up for businesses and the challenges that India will face in adoption of this idea of automatic processes.Finally, the paper will conclude whether the shift from human intensive techniques to capital intensive techniques is a viable option for Indian businesses.

Introduction

According to the Oxford Dictionary, automation refers to-

"Introduction of any automatic process or technology to do a task without human assistance."

Hence, in simple words, automation is the use of machines or processes in performingvarious tasks which remove the need of human interference in the completion of the work. The term automation is often confused with mechanisation but they are different. Mechanisation refers only to the replacement of human workforce with machines whereas, automation refers to the replacement of humans with machines in order to make things happen automatically. In other words, integration of machines in a system of self-governance where no or minimum human intervention is required.

Automation has revolutionised every sector in which it has been introduced. Nowadays, its being applied to running vehicles without any driver to automatically sending replies to people using chat bots. Not only this, it is also being applied to businesses in the field of production and customer relationship management. But it still has a lot of undiscovered potential that can be manipulated by businesses all across the globe.

Let's have a look at how the concept of automation was introduced and how has it evolved over the years.

Evolution of Automation

On reading the word automation, it seems to be a modern concept. But there lies an extensive history behind automations. In this section we will have a look at how the concept of robotics and automation evolved over the years.

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- **Foundations**

  Automation is an inevitable part of the human life. It is human nature that whenever they are given some work to do, they tend to find easy ways of completing the tasks and also ways that reduce the manpower required in the respective tasks. The earliest artefacts show that the ancient human beings developed various systems and ways that helped them make things happen on their own like use of pully systems and use of the flowing nature of water. One of such artefacts of robotics and automations dates back to the 400 BC where the Egyptians developed automatic water clocks to strike the hour bells and they also developed hydraulic statues that could make gestures and sounds automatically. Later on,during the first century, Chinese people developed trip hammer that worked on scientific principles of flowing water and a water wheel. Not only this, the early Greek people developed reaction motors that worked on steam. Which was further developed into the early steam engines that marked the beginning of the industrial revolution.

- **The Industrial Revolution**

  History has witnessed that humans have always tried to invent machines to perform tasks automatically without any human involvement. The Industrial Revolution was one phase where many such inventions were developed.During this era, many inventions took place that lead to a huge development in the field of robotics and automation. One of the early examples is the Jacquard loom which was invented in 1801 by a French inventor Joseph-Marie Jacquard which was an automatic loom capable of printing complex patterns on cloth using programmes and set of instructions and which did not require any human involvement for the process.These instructions were like the punched steel cards which had patterns punched on them which were inserted in the machine. The concept of programming a machine was further developed by Charles Babbage in the 19th century where he developed a complex machine called the 'analytical engine' which could perform mathematical calculations automatically. Since then systems and technologies have been developed in a way that could help in making tasks happen on their own and support automations.

  Ford the automotive giant was one of the first car manufacturers who developed a n automatic assembly line system where the steel chassis moved from one work station to another without any human interference. And similar systems have been developed by the other automobile manufacturers as it offered them a huge reduction in manufacturing costs and also reduced the time taken to produce a car.

  The industrial revolution was the phase that marks the adoption of automation technologies by businesses in various areas starting from production to inventory management and many more.Computer systems which could work on their own on the basis of a set of programmes and could perform the tasks repeatedly were introduced and these were fitted in the industrial machines to make them work without any human involvement making it easier to produce more in less time and by incurring less costs.

- **Contemporary Age**

  During the modern age the most significant developments which have led to a rapid growth in the field of automations is the developments and advancements in digital computer systems and data handling and processing systems. The invention of integrated circuits in 1960s led to the reduction in the size of computers and increase in their efficiency which facilitated systems becoming smaller and smaller and calculations being done at a rate as never seen before. Due to this, programmes where being performed very quickly motivating people to apply these technologies to perform various tasks which required a lot of manpower and also required a lot of time to complete so that these could be performed in very minimal time and they no longer require the extensive human resources.

- **The Digital Age**

  Over the past decade, the use of robotics is being seen in things starting from a driverless car to chat bots and to software that help businesses to manage their inventory and help them deal with the data collected from the customers very effectively.

The use of online means of payments led to the development of new methods and tools like e-wallets that can be used to make payments on the go and which removes the need of carrying cash wherever we go. Also, developments in this field are going on wherein the motive is to develop a digital listing and billing system which will directly make payments from your e-wallet without your involvement in it.

Google has been working on a project where it is experimenting on developing a car that does not require a driver. Not only this, it has developed an automatic system for data mining and processing for its search engine making it one of the best.

Walmart, one of the major retail outlets has adopted an automated inventory management that has facilitated the company to manage its stock of products very efficiently and beat all its competitors in the market.

Current Trends in the Automation Industry

In the initial years of the industrial revolution, automation was not such famous among business men. Since the immense potential that lies in the adoption of the technology was not known to people, they were stuck on the traditional ways

of doing things. But as the times have changed and the benefits of shifting to machines instead of humans have been noticed, the automation industry has been recorded to grow at a very fast pace. The following graphs show the current trends that have been recorded for this industry.

- The Distribution of the market for the automation systems and robots as per the data based on the supply of these products to the various sector is as follows:

On the basis of the above data it can be seen that the industries that use the maximum automations is the chemical industry with 19% of the total share followed by the oil production industry and energy industry with 15% share each and then the oil processing industry with 11% in the total supply.

- The following chart depicts the worldwide total annual supply of industrial robots from the year 2000-2018 where the figures for years 2000 to 2014 are real and for 2015 to 2018 are forecasted.
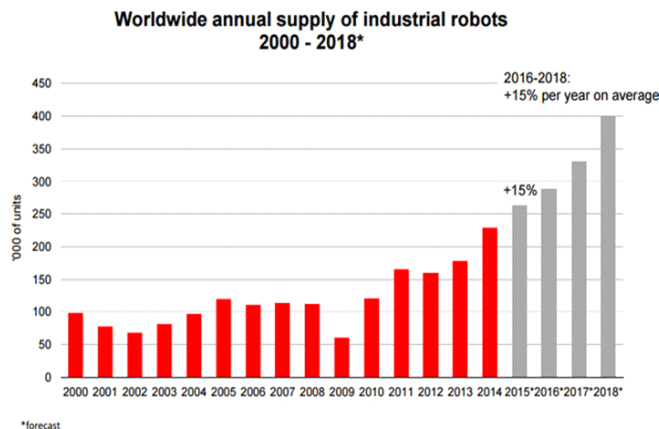
The above graph shows the number of units supplied over the various years in absolute terms. Hence it can be seen that the number shave been showing a positive trend with an average growth rate of +9% throughout the period where the forecasted figures of years 2015 to 2018 have been expected to show a 15% rise in the figures.

- The next graph shows the CAGR of the industrial annual market growth rate with values taken in USD over the period 2015 to 2022.
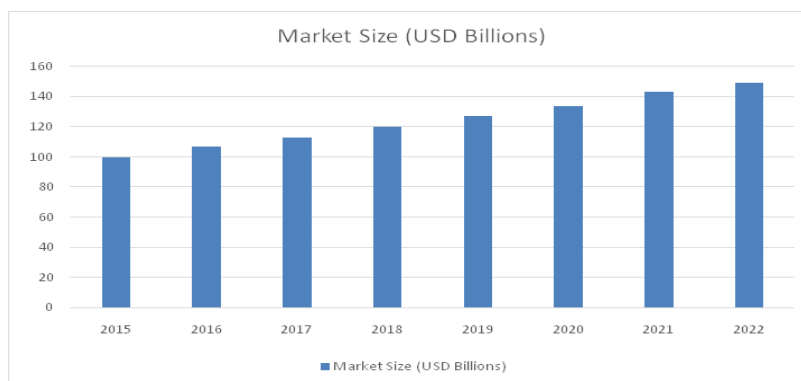
This graph uses the monetary value of the market size of industrial automation products. In the year 2015. The data shows a USD 110 billion which grew to nearly USD 113 billion in 2017 giving a CAGR of ~6% and hence the figures of the years 2018 to 2022 are derived considering the same. Till 2022 it is expected to grow up to more than USD 149 billion.

Opportunities in Automation

1. Improved Well-Being of Workers

Worker protection is an important motive for automating an industrial procedure. Automated systems often take out workers from the workplace, thus preserve them against the dangers of the factory environment shorter working hours for labour.

The British Safety Council, surveyed India and found out that over the past 30 years, the around 48000 fatal accidents have taken place at workplaces affecting a large number of workers. This data includes the 38 injuries on a daily basis which take place only in the construction sector.

Automation technology such as robotic assistance and sorting structures can make factory operations safer by automating possibly risky tasks that would otherwise be handled by employees. Industrial automation cuts the need for workers in a hazardous area like palletizing, truck loading, or other actions where people are vulnerable to machinery and difficult, demanding jobs and ultimately reducing the number of fatalities in the Indian workplace.

2. Increased Competitiveness, Sales and Profit

Mechanization allows to you to become more cost-effective in your market. This is because as your production process is more automated, man-made error is reduced, product quality become more consistent, and cost per part goes down due to increased production speeds and the reduction in resources required producing the goods.

In fact, the price of physical labour has radically increased in current years. For instance, if we take the example of the construction industry, the costs of labour in the multi-story buildings has gone up by 20% and for the small construction it has gone up by 30-40%. Not only this. In the maintenance and repairs, the cost has gone up by 125%. On the other hand, automation equipment, including robotics, and sorting systems etc., has seen a comparative diminution in costs, or at very worst has held sturdy when the cost of everything else from land to energy to labour has increased.

3. Increase Production Capability

Years ago, when most of the production was done by human intensive techniques, many a times the production used to stop due to sickness of the workers or due to fatigue. Not only this the rate of production used to be very less.In India, the average daily wage worker works for 8 hours in a day with a provision of an hours break per 6 hours.

But these days when the human interference has been reduced to a huge extent, automation increases your production capacity as equipment can be set to work around the clock without human assistance. Automated machines do not have disruptions, break or sickness, and therefore even if they are only running during normal shift hours, this single-handedly can often lead to a significant increase in production. Automated machinery can also usually run faster and produce more precisely made products with fewer defects.

4. Quality Consistency

The human brain has its own limitations and capabilities. It can never give the same output every time it performs the same task. This phenomenon is very common in a workplace also. In a study by Dr. David J. Smith on the human error rate, he found out that in routine tasks that need a certain degree of care, the human brain is likely to produce on error in every 100 times the work is done. Not only this, his findings have proved that if the tasks are made simpler, the error rate can be reduced to a large extent which is done by introducing automations.

Automated manufacturing is fundamentally more reliable and accurate in production quality. In order to meet market demands these days, product value has to be better and steadier than ever before, often the only way to achieve this is with automation.

Automated examination systems can be installed at the end of a manual or automated production process using devices and automated systems to routinely check points for defects and compliance with requirements. This allows defective products to be excluded, eliminating defects and expensive product recalls.

5. More Efficient Usage of Material

As mentioned in the previous point, the human brain has limited capabilities. There are higher chances of variability in the work done and also most of the time lead to a lot of wastage of the resources.

On the other hand, automated systems typically perform the manufacturing process with less variability than human workers, using automated equipment leads to minimal wastage as the machines are very precise, resulting in greater control and

consistency of product quality. Also, increased process control makes more efficient use of materials, resulting in less scrap, hence, ensuring optimum utilisation of a company's resources.

6. Shift Towards Digitisation

With the enormous development in the field of computers and digital systems, the govt. of India is taking initiatives to promote the use of digital means of performing business operations. This includes the use of e-wallets for making payments, use of software applications to automate the various functions like e-CRM, inventory control and management, accounting and tax filling etc. which are explained later in the paper.

Challenges in Automation

1. Capital Expenditure

Whereas automation can prove extremely effective and bring you a positive ROI, it may also require a equally high capital price. Automated machines can be one of the costliest operating costs for a company. With automated technologies running anywhere between thousands and millions depending on the type and degree of mechanization.

There can be several unpredictable costs that may exceed the actual cost saved by the automation itself. Some of these costs could consist of research and development expenses of automating a process, preventative maintenance costs, and the cost of training employees to operate automated machines.

2. Worker Displacement,

Despite the social benefits that might result from retraining displaced workers for other jobs, in almost all cases the worker whose job has been taken over by a machine undergoes a period of emotional stress. In addition to shift from work, the worker may be displaced from one place to another. In order to find other work, an individual may have to relocate, which is another source of stress.So, by increasing the amount of mechanization and computerization, there are less employees that are necessary, thus causing high unemployment rates.

The following chart shows the projections that to what extent is the workforce most likely to get reduced due to automations in the upcoming years. The projections have been developed on the basis of the trends recorded during the last decade:
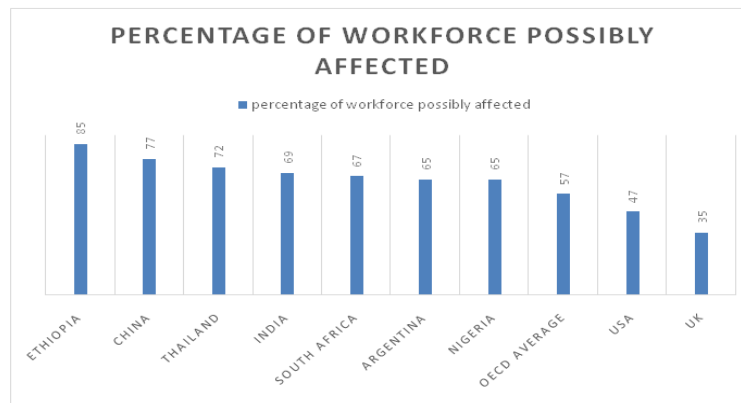
According to the above chart, the workforce of countries like Ethiopia and China will be the most affected by the transition of companies towards automated and mechanised offices. On the other hand, the workforce of countries like USA and UK will be the least affected. Hence, it can be seen that the transition affects the under-developed and developing countries more than the developed ones.

3. Cannot Perform Complex Tasks

One of the main challenges faced by automated machines is that, since they are programmed, they are only able to do tasks that are programmed in them and only can do these tasks repeatedly. The equipment does not have a mind of its own, so they cannot do a range of tasks at a time like their human counterparts.

4. Require Maintenance and Training

Another disadvantage of automated machineries is that they necessitate high maintenance and for proper procedure of the machines workers are required to go through intense training and should learn how to properly use the machine for high quality results. Allocation

This is a major challenge as most of the companies do not have sufficient funds as the training process requires hiring of training personals and can lead to hiring of many new employees and firing of many employees and factory workers. Having a good training to the workers assures a good functionality for the machine

5. Continuous up Gradation

As with any type of equipment, if you change your manufacturing process or product you are manufacturing so that a particular machine becomes obsolete. Therefore, it becomes a challenge as the continuous up gradation leads to constant expenditure to keep up with the current version of the machine to increase the efficiency.

So is very important to future proof any mechanisation you put in into your manufacturing process. you must have spent money to build a flexible system so that it can adapt to any new up gradation that might come in the future.

Automation Techniques in Different Departments

Finance Department

According to a Finance report, mechanization will remove up to 40% of the transactional accounting work the finance department does today. When nearly half the work becomes automated, it will open the team up to creating business value through judgment support, predictive analytics and performance management.

Automation and mechanism learning will substitute time-intensive, low-value and conservative accounting tasks in the near future. This means the finance team will be spending more of their time on high-value, forward-looking business building — and that the team has the potential to be one of your company's most important competitive advantages.

1. Payroll Management

An excel-based workforce management requires employees to execute day-to-day data entry and updates. At the same time, joining multiple performance-related variables make it tougher to update and manage employee salaries. By using automated techniques the team can easily do all the tasks. Nowadays a number of computer software are available to support the automation of payroll management.

2. Daily Financial Management Unification

Even a successful business is required to handle about 100 transactions in a day. This includes both financial inflow and outflow.

By means of computerization you can manage all monetary requirements within a single dashboard. This involves uniting and handling multiple payments strings through a single dashboard.

3. Micro-Management of Customer Services

This system of organization lets you store, recover and edit complex customer details.

This also helps to assist the concerned clients in an easier and more forthright manner. You can quickly retrieve a facility statement for a given time period, provide client's data and examine payment patterns.

4. Combination of Book Keeping Responsibilities

Most organizations would like to offer direct payments and monthly dealings without involving a 3rd party bank to provide this specific service.

Without computerization, the responsibility of recovering essential information and reaching onto concerned employee onto finance department. Often, finance had the added responsibility to reach out to specific customers regarding impending payments.

5. Generating Custom Quotations

A computerized system lets your sales team create custom invoices based on a certain set of parameters or rules. This allows your invoices to be generated in an easy and direct way.

Human Resources (HR) Department

HR depends on paper-driven procedures to get work done. In a paper-based office, any procedure requires someone to make sure the paperwork is precisely prepared, printed, signed by the required personnel, received by HR and appropriately filed.

Here are some core HR functions that can be improved with computerization:

1. Employee records management.

Recollect employee's records according to government regulations in the source.

2. Employee recruitment

Routinely store application is submitted through online forms in the source and allocates them to a recruiter for review.

3. Employee on Boarding

Guide confident agreements, waivers and additional forms to new hires and, when completed, send them to the corresponding folders in the source.

4. Benefits

Find when staff becomes qualified for assistance enrolment.

5. Health and Safety

Direct update emails to ground monitors when a worker leaves the organization or moves to a new place.

6. Tax Forms

Enable the distribution of W2s and other tax documents with employee email reminders.

Marketing Department

With marketing computerization, it is easier and faster for companies to move forward. 80% users have reported increased number of leads while 77% have improved conversion rates. Companies who used promotion automation experienced an increase in revenue after a year.

1. Lead Scoring

In this technique, you will rank your forecasts by a scoringsystem. The scores of the forecasts will direct the sales team on who to prioritize and who needs more lead nurturing.

2. Date-Based Automation

Marketing computerization based on dates will assist you occupy with your potential customers all-year-round. A basic date-based automation practice is a birthday salutation on your subscriber's birthday. It can also reach out to the prospects on other occasions like Christmas, New Year, and other annual events too.

3. Advanced Segmentation

Highly personalize your marketing campaign with progressive segmentation. You can divide your segments further through the following:

- Based on referrer site
- Based on location
- Based on content opened
- Based on their phase on the customer's journey
- Based on their engagement
- Based on the device they are using
- Based on their interest

Research & Development

The principle of computerization is for the task to be undertaken mechanically, without human involvement. So, for Research Now, as a panel company, we have recognized some clear opportunities for research process automation:

1. Automated Sampling,

Automated sampling is done by integrating their proprietary customer sections within our panel, so that they can quickly and easily target specific customer types based on their chosen research objectives. This saves them a incredible time as we can be quite thoughtful about how we reach out to defendants while improving qualification and completion rates and lowering our clients' costs.

2. Automated Survey Scripting

A developing methodology involving automated scripting is the use of template, pre-built questionnaires with nominal changes from study to study, usually limited to only the specific brand or product category being verified. This process eliminates time-intensive survey scripting and ensures that the results are collected in a standardized manner, which allows for their use in benchmarking and other normative analyses.

3. Automated Visualization of Data

Automated data visualization represents a considerable time and cost savings, as many software tools can quickly process

complicated data files and display the results in easy-to-understand layouts. These tools allow researchers to handle much bigger data sets and spend less time creating common charts and graphs.

Conclusion

India being of the most populated countries in the world, is home to a total of 487 million   workforce. This workforce mainly depends on the primary and secondary sectors for their livelihood.

The modern businesses due to the rise in the competition and the struggle they need to do for their survival, are trying to shift to techniques that give them cost advantages and also increase their efficiency. They are trying to gain some competitive edges by implementing new methods and using the modern technologies that are available due to the huge developments that have taken place over the last few decades.

People being less aware of the concept of automations don't understand the potential that lies in the various techniques and processes of business automations. The concept of reducing the human interference in the various functional department not only gives companies a cost advantage but also leads to the optimum utilisation of resources which gives a buff to the overall efficiency of the respective company.

Hence, on the basis of the opportunities and challenges in the shift towards automated businesses, we found that it is beneficial for the Indian businesses to shift towards automations. The reasons being:

- Increased efficiency of the business across all the functional departments.
- Cost reductions and less wastage of resources.
- World class production due to less variability.
- Increased scale of operations to cater the high levels of demand.
- Training and development of employees as they are the ones who will be running the machines and hence ultimately a rise in the amount of skilled work force.
- Shift towards the use of computer software for the various business functions and making the company support the government's initiative of digitisation.
- Proper government support in availing the various technologies required for a smooth transition.

Although there are some challenges that the Indian companies will have to face but the shift will bring about a change that will give returns which will be much more the loss that the companies will have to face.

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Digitalization Prospective in Present Scenario HRM

*Rahul Anand * & Ashmeet Singh Vohra***

Abstract

Digitalization is changing the way HR departments do record keeping and data sharing. It has diminished the use of printed material significantly and enables simple access to information. Employees today can monitortheirperformance without interacting with their reporting managers. This innovative service uses intranet, internet and other channels. It is also used in other HR procedures like employee engagement, salary management and employee rewards and recognition. The preparing and transmission of digitalized HR data is called e-HRM. E-HRM is the maintenance and application of IT for both networking and supporting at least two individual or collective actors in their shared performing of HR activities. It is a hub of data with respect to financial transaction, worker individual information, execution administration, preparing, enlistment and key introduction. The approval of various HR capacities can be appropriated through E-HRM. The adjustment in Information Technology is very fast in today's dynamic organisations. One of the biggest problem which HR departments face, is to make people understand about the new upgrades which happen time to time. The IT potential outcomes for HRM are perpetual; as IT is advancing day by day. With the advent of programming and databases, record keepinghas been made easier. DiglitalisedHRM is the generally new term for some SME's and they are adopting it slowly and steadily. E-HRM is the new field of innovation that is generally spreading in around the globe. It aims at transforming the HR functions into one that is paperless, more flexible and resource efficient

Keyword: *E-HRM, HR Activities, IT, HR Departments, SME's, employers and employees.*

Introduction

E-HRM is the (planning, implementation and) application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of HR activities.

E-HRM is in essence the devolution of HR functions to management and employees. They access these functions typically via intranet or other web-technology channels. The empowerment of managers and employees to perform certain chosen HR functions relieves the HR department of these tasks, allowing HR staff to focus less on the operational and more on the strategic elements of HR, and allowing organisations to lower HR department staffing levels as the administrative burden is lightened. It is anticipated that, as E-HRM develops and becomes more entrenched in business culture, these changes will become more apparent, but they have yet to be manifested to a significant degree. A 2007 CIPD survey states that "The initial research indicates that much-commented-on development such as shared services; outsourcing and e-HR have had relatively little impact on costs or staff numbers".

The processing and transmission of digitalized HR information is called electronic human resource management (eHRM). E-HRM is the application of IT for HR practices which enables easy interactions within employee and orientation. Information technology is changing the way HR departments handle record keeping and information sharing. It decreases the paperwork substantially and allows easy access to voluminous data. The employee can also keep track of his/her achievements without having to go through litigious procedures. It uses intranet or other web technology channels. It can also be used for implementation of different HR strategies. The authorization of different HR functions can be distributed through E-HRM. It stores information regarding payroll, employee personal data, performance management, training, recruitment and strategic orientation. Information technology is changing the way HR departments handle record keeping and information sharing. It decreases the paperwork substantially and allows easy access to voluminous data. The employee can also keep track of his/her achievements without having to go through litigious procedures. It uses intranet or other web technology channels. It can also be used for implementation of different HR strategies. The authorization of different HR functions can be distributed through E-HRM.

Competitive business environments have compelled the organizations to think speedily to innovate and excel for their survival. Technology advancement is one of the powerful driving forces. It has reshaped the way we communicate, live, work and also the way a business is conducted. Corporations need to shift from physical technology to information technology, from capital centered economy to human centered economy, and further from conflict to cooperative working

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relationships. Since many years now, information technology seems to be affecting individuals and organizations communication and behaviours. The change in Information Technology is faster than any other processes in the organization. One of the major hurdles which the HR department needs to cross is the changing technological environment. The IT possibilities for HRM are endless; in principle all HR processes can be supported by IT. Computers have simplified the task of analyzing vast amounts of data and they can be invaluable aids in HR management, from payroll processing to record retention. With computer hardware, software and databases, organization can keep records and information better as well as retrieve them with greater ease. E-HRM is the relatively new term for this IT supported HRM, especially through the use of web technology. E-HRM is the new field of technology that is widely spreading in organizations around the world. It aims at transforming the HR functions into one that is paperless, more flexible and resource efficient. With the state of IT, HRM has become more effective through the use of e-HRM technologies. E-HRM has the potential to change the way traditional HRM functions are performed. For e.g. in the analysis and design of work, employees in geographically dispersed locations can work together in virtual teams using videos, e-mail etc. Under recruitment function, job openings can be posted online, and candidates can apply for jobs online. On compensation and benefits issues, e-HRM will make it easy for employees to review salary and bonus information and seek information about bonus plans.

E-HRM Tools

1. E- Worker Profile: E-Employee Profile web provision provides for the principle perspective of entry of the representative contact information Furthermore provides for a far-reaching illustrative database arrangement, streamlining hr organization Also one assembly attempting Eventually Tom's perusing giving illustrative abilities, Acquaintanceship framework Furthermore actually portraits. E-Employee profile help lies for the single person worker, the director and the database supervisor. E-Employee profile comprises of the accompanying: Certification, Honor/Award, Membership, Education, secret word worth of effort Experience, chore Skills, Competency, Worker work Rules, representative Availability, Worker special case Hours, Worker Utilization, representative instruments, particular occupation data, delicate occupation Information, administration Details, Calendar, logbook Administration, representative locator.

2. E-Recruitment: associations at first started using Pcs Similarly as a recruiting device around Eventually Tom's perusing pushing occupations with respect to a notice board starting with which imminent hopefuls might contact chiefs. At that point, a couple associations began will take e-applications. Today those web need turned under an fundamental methods for organizations should examine to fill in hopefuls Furthermore for hopefuls with scan to the action. Upwards about 100,000 enrolling locales are open should directors Also occupation applicants Furthermore which on post livelihood Also overview resumes for different sorts. A chance to be that Concerning illustration it may, those flimsy improvemen about web selecting also infers those hr masters could be overwhelmed by the extensiveness Also degree of web enrolling.

3. E-Recruiting Methods

A) E-Selection: The greater part businesses appear with be grasping web recruitment with enthusiasm, the infiltration about on-line evaluation devices for example, such that customized appraisals alternately capacity tests, need as such been set. A study need indicated that associations officially use whichever psychometric or other appraisal throughout those recruitment process, best couple from claiming these organizations utilization on-line appraisals former to meeting.

B) E-Learning: e-taking in alludes will any system for picking up, get ready or direction book the place electronic gadgets, requisitions What's more methods are used for data creation, organization Also trade e-taking in is An term coating An wide-set from claiming provisions Furthermore courses for example, web-based learning, computer-based learning, virtual population room, Furthermore advanced coordinated effort. It incorporates those conveyance of substance by method for those Internet, intranet/extranet (LAN/WAN), heartless Furthermore tape, satellite communicate, canny TV, cd – Rom, and the sky will be those limit starting with there.

C) E-Training: The majority organizations begin with consider web Taking in principally Concerning illustration An additional proficient manner to disseminate preparation inside the organization, settling on it accessible "any time", "anywhere" lessening immediate costs (instructors, printed materials, preparing facilities), and backhanded fetches (travel time, lodging Furthermore head out expenses, workforce downtimes). Pulled in Toward these noteworthy and measurable advantages, organizations start on search for approaches will aggravate those A large portion of their existing center preparing accessible online, Also with wrist bindings Also measure those use of the new competencies.

4. E-Performance management System: a web-based examination framework could be characterized Similarly as those framework which utilization the web (intranet and internet) to viably assess the skills, information and the execution of the representatives.

5. E-Compensation: know organizations if little or substantial must captivate Previously, payment arranging. Compensation orchestrating is those approach at guaranteeing that chiefs convey payment increases impartially again the cooperation same time remaining inside using decides. As cooperations need started developing their

limits, use about intranet Also web need turned out with a chance to be vital. The use for intranet Furthermore web for pay orchestrating is known as E-Compensation management.

Objectives of The Study

The objective of the study is to find out

- To study the effectiveness of e-HRM over traditional HRM practices.
- To study the Challenges faced by companies using e-HRM.
- To study how e-HRM is shaping organization in a technology driven environment.

Research Methodology

Secondary data published in various newspapers, articles, journals, websites and research papers is used.

Literature Review

Bhagawan Chandra Sinha[1] and Dr. Mridula Mishra[2] 2014 in their study "E-HRM Tools: An Empirical Study in Select Indian Organizations" indicated that at 95% confidence level the model is highly significant. In other words, the rating given by the respondents are significantly different from each other. So, the null hypothesis is rejected and the alternate hypothesis is accepted that in terms of 'level of satisfaction' towards the e-HRM system, the rating given by the respondents are significantly different from each other. It can be concluded that the sample is representing the population.

PUJA SAREEN[1] 2015 in her study of "Employee Satisfaction towards e-HRM' system examined the reason for satisfaction towards e-HRM systems being dependent variable is because it has been found generally that age determines whether the respondent is satisfied or not. The cross-tabulation table produced by SPSS shows that out of the satisfied 'End-users', a higher percentage is in the age group of below 30 years. It is also observed that dissatisfaction is increasing with age. The count of dissatisfied respondents is increasing in higher age groups.

Janet H. Marler[1] and Sandra L. Fisher[2] 2015 in their study "an evidence-based review of e-HRM and strategic human resource management" examined the first noticeable gap in the literature is the somewhat limited rigorous application of theory to the research questions. Almost a third of the studies we reviewed were exploratory and lacking specific theoretical foundation to guide the research. We need a stronger theoretical foundation for e-HRM research in general to help make sense of the literature, strengthen the research conducted, and facilitate effective accumulation of knowledge. The theoretical perspectives described in this paper summarizedthe strategic perspectives for their topic of study.

Delivery Tools/ Instruments- According to Ketley and Reilly (2003), computerized human resource information system consists of a fully integrated, organization wide network of HR-related data, information, services, databases, tools and transactions. Technology has only recently developed in a way that enables eHRM to make its mark, especially the introduction of corporate intranets and web-enabled HRIS. The nature of the development path, however, varies considerably from organization to organization. Kavanagh and Thite (2008) reported that to improve effectiveness and efficiency in terms of service delivery, cost reduction and value-added services, HR departments came under pressure to harness technology that was becoming cheaper and more powerful. Sanayei and Mirzaei (2008) in empirical study aim at providing an explanation of e-HRM and introducing its activities and tools, after the investigation, the effect of various independent variables such as job satisfaction, professional commitment, and organizational commitment on the effectiveness of HRM as a dependent variable. E-HRM tools such as intranet, extranet, HR portals; integrated HR suite software is rarely used, however according to expert's judgment if they are used, they would have a positive effect on HRM output in Iranian organizations. Florkowski and Olivas-Lujan (2006) examines the diffusion patterns of eight information technologies that are transforming HR service-delivery in North America and Europe: HR functional applications, integrated HR suites, IVR systems, HR intranets, employee and manager self-service applications, HR extranets, and HR portals. The overall diffusion was best characterized as an outgrowth of internal influences, fuelled primarily by contacts among members in the social system of potential adopters. Companies in the 21st century can be broadly said to have adopted at least one of the above mentioned e-HRM technologies.

Foster et al. (2004) describe that the application of the internet to the Human Resource function (e-HR) combines two elements; one is the use of electronic media while the other is the active participation of employees in the process. Bondarouk, T. et al. (2004) states organisations need to embrace the e-HRM revolution which relies on cutting edge information technology, ranging from internet-enabled human resources information systems (HRIS) to corporate intranets and portals. According to Biesalski (2003), e-HRM is a webbased tool to automate and support HR processes. According to Lengnick-Hall, & Moritz, (2003) the final stage of total digitalization in the 1990s arrived when HR professionals and ICT specialists joined forces and developed electronic information systems that moved HR decision making from drawers to computer As per Watson Wyatt's (2002) survey of HR technology issues revealed that a wide variety of HR and payroll systems are being used today. According to the results of the study, web technology is the predominant method for delivering HR-related services to employees and managers, and offers significant opportunities to improve communication, knowledge sharing and HR delivery systems In the views of Wright, M. et al. (2001) e-HRM refers to the processing

and transmission of digitized information used in HRM, including text, sound and visual images, from one computer to another electronic device. As stated by Doughty (2000), today, within the HR software market there are a myriad of HR systems, payroll, training administration, 360 degree feedback, psychological testing and competency software tools operating in their own software features.

Raashidah Gani[1], Darakhshan Anjum[2] 2017 in their study "e- Human Resource Management (e-HRM)" analyzed e-HRM technology to be very helpful for the organizations and has proved effective for the employees working in the organization as it provides sufficient opportunities for employee's career planning and development. Moreover, by the implementation of e- HRM the employees can identify and nurture their talents and helps them to raise their performance. E- HRM is a way of implementing Human Resource strategies, policies and practices in an organization through a conscious and directed support of and/or with the full use of web- based channels.

Findings

A careful study and interpretation of the information composed at the bank help in classifying the following problems and challenges with respect to any e- Human Resource Management scheme: The findings of e-HRM the Critical Success Factors for Adoption of e-HRM

   1. Dedication to Change Management from the Start of the Project

Remus, 2007 says that ¯Managing change within the organization could be a full-time job by itself as it needs the management of human resource and their expectations, resistance to change confusion redundancies and error. For this technology (e-HRM), to be successfully implemented, the organization should understand the impact of this new change on employees, managers, and Human Resource staff and to understand its dimensions in order to manage the effects of a corporate strategy that is open to change.

e-HRM Practices	Implications of e-HRM
Evaluation and Design of Work	Employees in demographically distributed locations can work together in virtual teams using e-mail, video and the internet.
Recruiting	Post job openings online, candidates may apply for vacancy online.
Selection	Online simulations, including tests, videos, and e-mail can evaluate candidate's abilities to deal with real life business challenges.
Remuneration and Benefits	Employees can review salary and bonus details and seek information about and enrollment benefit plans.

   2. User Acceptance

Human Resource Professionals face real challenges in this. Acknowledgement by users is a very complex activity as the system is analyzed in a different way from different outlooks and thus there is no one opinion. In the day- to- day use, it could turn out various suggestions which were not stamped throughout outlining those requisitions Furthermore Subsequently client figures himself that requisition is not dependent upon those desire. This may be the place mankind's asset need should verify individuals are arranged starting with start and it doesn't get to be a confined entry during the conclusion.

   3. Presence of an Information Technology Culture, an Important Pre- condition

Organizations must assess if they need e-HRM preceding or calling for consultants should execute results. Associations searching for better transparency go for e-HRM. The software provided by retailer needs to be improvised as per organizational requirements. A lot of research, in- depth study and analysis need to be done to learn the probability of the project, especially in terms of the cost factor and the sustainability of the project. Only those firms, which are comprehensively organized for enabling Human Resource, should go for it. This accumulates the presence of an Information Technology (IT) Culture. The mankind's asset section Concerning illustration a methodology holder, being clear around the aim of e- HRM, picking the right configuration and execution accomplices furthermore a readiness to use hours preparation workers on the best utilization of those portal.

   4. Involvement of all the Stakeholders early on to Gain their Buy- in

This is a critical pre-condition for any e-HRM undertaking to be started and to be executed successfully and proficiently.

   5. Communication of the Value of any Technology Solution to the Users

Conveying the significance of any technology solution for both the organization and all the more importantly for the general people who will utilize the arrangement is fundamental. This correspondence must be in the user's words.

   6. Clarity on the Part of all Users Regarding the Question. "What's in it for me?"

To deal with the plan effectively, it requires the usage of technology as well as managing the expectations of all to be affected.

7. Adequate Training to The Users

Since the e-HRM system offers new techniques of processing transformed or new Human Resource activities, proper training must be given to all users of the system. This becomes important since the new interface provides functionality that has been never been used before and needs to be related to the newly reengineered business processes. Educating brings to the knowledge of users to point where they can disseminate themselves with the new e-HRM system speedily and suitably. Training and Education is a crucial step in managing change itself, as employees must be enlightened about the new system to comprehend how it changes business processes.

The Challenges of E-HRM

Among the most prevailing issues faced by management are control, business requirements, and best practices. Some of the major challenges that have been identified are:

1) Cost Implications: Costs tend to be relative to the requirements and the type of organization. Given the costs, organizations must allow just those operations that are basic, irreplaceable or attractive.

2) Aligning the e-HRM system with the business requirements: Undertaking Resource Planning applications change generally in their allowance for control, commonly accepting either a corporate or specialty unit locus of control. Hence management must believe the ERP'S stance on control to ensure it will meet the business requirements of the company.

3) Security of the information generated: An organization needs to ensure that outsiders or competitors ought not to get to access the confidential information. In this structure, appropriate vendor determination is a basic condition to guarantee privacy.

4) Managing the data: Dealing with the tremendous amount of information produced through Human Resource Management System is a moderately new challenge for organizations.

5) Overkill and loss of the "human touch": Another challenge is the avoidance or evasion of overkill and loss of the human touch. It ought not to be the situation that in an offer to be techno-canny we desert the human side.

6) For traditional companies the task is more so difficult: e-HRM is more so a challenge for the conventional companies which need to bring about a change in the mindsets to a large extent. These organizations when compared to those in the Information Sector (IT), BPO'S and so forth, are having a harder time motivating individuals to speed up on these e-HR apparatuses.

7) Training the users, a crucial issue: Training the users is many a times a long drawn out process, as many people do not find them to be user friendly.

8) Continuous monitoring and feedback: Constant and continuous monitoring and feedback are critical to the success of any e-HRM effort in an organization.

Conclusion

E- HRM is a web-based tool that automates and supports HR processes. The execution of e-HRM is an opportunity to delegate the data entry to the employee. e- HRM facilitates the usages of HR marketplace and offers more self-service to the employees. e- HRM (Electronic Human Resource Management) is an advanced organizational solution which provides a complete online support in the management of all processes, activities, data and information required to manage human resources in a modern company. It is an efficient, reliable, and easy – to use tool, accessible to a broad group of different users. E-HRM is a high-tech way of executing HRM functions. Organizations are recognizing the significance of sustainability in terms of competition, selecting and retaining talented employees and position of the company. To stand with dynamic economic, social and environmental forces and keeping in mind both internal and external stakeholders, organizations are trying to achieve sustainable environment for business long-term growth. With the different advantages and little hindrances, it can be recommended that all the organizations utilize e-HRM technology that assures to give a valuable, effective and increased performance through this e-HRM technology in spite of all barriers it has to face E-HRM is a method for actualizing HR procedures, approaches, and practices in organizations through a cognizant and coordinated support of and with the successful utilization of web-technology based channels. It covers all aspects of human resource management like staff organization, education and training, career development, corporate organization, sets of expectations, job descriptions, hiring process, employee's personal pages, and annual interviews with employees. Thusly e-HRM is method for doing HRM.

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The Effect of Digitization on Indian Economic

Mohit Kaushik* & Jhankar Dhingra**

Abstract

Digitization- the bulk adoption of associated digital services with users, enterprises, andauthorities, has emerged as being a big driver and enabler of socio-economic benefits. Indeed, despite adverse international economic conditions, digitization may play a vital role in assistingpolicymakers to market economic growth and employment. The objective of this paper is toshowcase how digitization will help in cost minimization of business and job creation oremployment. India is chalking out its own growth strategy driven by digitalization, connectivity,cashless/paperless market, and start-up innovation ecosystem throughout policies and program like Digital India& Indian economic development will likely be driven by the rising techadoption. In this research paper, we have shown how digitalization can be a source ofemployment generation in various fields. The economics related to the concept of digitization istwo-fold. The first one, how economic is the process of digitization? And second, its impact onthe economy of country. The factors linked to adoption and usage of digital technology, such asfor example pricing, reliability, speed, and ease of usage determine the degree of digitization,which in turn has got a proven impact on reducing unemployment, improving quality of life, andboosting citizens, access to public services. India is the 2nd largest telecom market in the worldwith 915 million wireless subscribers and world& 3rd largest Internet market place with nearly259 million broadband consumers. There is still a enormous economic opportunity in Indiawhilst the telephone-density in rural India is merely 45%, where significantly more than 65percent of the population lives. It may play an important part in macro-economic factors such asGDP growth, employment generation, labor productivity, increase in many businesses andrevenue leakages for your Authorities. This paper highlights the impact of digitization oneconomic growth.

Keywords: *Abstract, Social Media, Startups, Social Media Consultants, Audience*

Impact of Digitisation on Indian Economy

Introduction

The Indian market has developed from only Rs. 2.7 lakh crore to Rs 57 lakh crore which makes it the entire world's sixth-largest market by GDP and the third-largest by purchasing power parity (PPP). The nation ranks 141st in per capita GDP and also 123rd in per capita GDP (PPP) at the time of 20-16. After 1991 Indian market has seen plenty of developments from being relegated into starting its door for worldwide gambling by allowing LPG(Privatization and Globalization, Privatization and Globalization) from 1991 under the then Prime Minister Mr. P. V. Narasimha Rao and also Finance Minister Dr. Manmohan Singh. India achieved 6 7% moderate GDP growth yearly. Back in FY 2015 to 2017, India's market became the world's most fastest-growing big economy exceeding China.

Digitization could be that the mass adoption of connected electronic services with consumers, businesses, and authorities— is a lot more than the usual tumultuous wave washing foreign companies. Initially, individuals were introduced to the usage of pcs, and the automation required every business by storm now we may observe the digital universe which exists.

Digital World and Digital India

World Economic Forum in its own Global Information Technology Report generated a Networked Readiness Index (NRI) some 12 years ago, to draw the eye of both decisionmakers and investors involving the adoption of financial and business plans that could permit them to grow in the circumstance of a fast-moving but Profession online economy. From the world wide it report, 20-16 released by World Economic Forum India Ranked 91st standing in Network Readiness Index one of 139 countries slide down from two positions in the total ranking. The shift is more marginal, but this drop is still a sign of the slower speed compared to other nations.

Under the direction of honourable Prime Minister Mr.Narendra Modi, India gets prepared to bring a head-to-head conclusion with the remainder of the earth. Together with his vision to produce an electronic digital India using his tough plan

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Bharat Net. Because the majority of the Indian people still have a home in many rural areas where an online connection can be a fantasy, the federal government is building a highspeed electronic highway to join all of 2.5 lakh Gram Panchayats of the nation. This is the planet's biggest rural broadband connectivity endeavour utilizing optical fiber.

Objective

1) To understand the various measures of digitization index.
2) To analyse the effect of digitization on Indian economic development
3) To Examine Different Constraints Of Digitization.

Research Methodology

The analysis is qualitative and qualitative in character. The secondary information will be used for that diagnosis of the issue. Resources for your secondary statistics will be derived from the numerous sources such as special investigation team file, paper and Telecom Regulatory Authority of India, World Economic Forum internet sites.

The Digitization Index

Digitization metrics decide to try to measure the cumulative influence of adoption and using information and communication technologies (ICT). We all know that the holistic adoption and using it contributes to enhanced economic development. There are just six measures of digitization indicator employed from the analysis.

1. **Affordability:-** it has to be sufficiently affordable to allow scalable impact.
2. **Infrastructure Reliability:-** it is supported by telecommunications networks and reaching most population of a national territory.
3. **Network Access:-** networks need to be accessed by multiple fixed and mobile voice and data devices.
4. **Capacity:-** Bandwidth is the data rate supported with a network connection. This is stems from the area of technology where bandwidth reflects the exact distance between the highest and smallest signs on a communicating station (ring). Greater bandwidth indicates that a larger capacity nonetheless, it will not necessarily signify increased performance.
5. **Usage:-** networks have to provide sufficient capacity to deliver vast amounts of information at speeds that do not hinder their effective use.
6. Human Capital

Indicators	Components	Sub-components
Affordabiliy	Residential fixed line cost adjusted for GDP per capita	Residential fixed line tariff (3 minute call to a fixed line at peak rate) adjusted for GDP per capita
		Residential fixed line connection fee adjusted for GDP per capita
	Mobile cellular cost adjusted for GDP	Mobile cellular prepaid tariff (1 minute call off-net per capita at peak rate) adjusted for GDP/capita
		Mobile cellular prepaid one-time connection fee adjusted for GDP per capita
	Fixed broadband Internet access cost adjusted for GDP per capita	Monthly residential price for a fixed broadband connection
Infrastructure reliability	Investment in telecommunications per telecom subscriber (mobile, broadband and fixed)	Mobile investment per capita
		Broadband investment per capita
		Fixed line investment per capita
Network Access	Network penetration	Fixed Broadband penetration
		Mobile Phone penetration
	Other penetration metrics and coverage infrastructure	Mobile broadband penetration
		PC Population penetration
		Mobile cellular network coverage

Capacity	International Internet bandwidth	International Internet bandwidth (kbps/user)
	Broadband speed	Broadband speed (% of connections with download speed over 2 Mbps)
Human Capital	Engineers	Engineers as a percentage of total population
	Skilled Labour	Labour force with more than a secondary education as a percentage of the total labour force
Usage	Internet retail	Internet retail as percent of total retail
	e-Government	E-government Web measure index
	Individuals using the internet	Percentage of individuals using the Internet
	Non-voice services as % of wireless ARPU	Non-voice (data, message, VAS) spending as percentage of wireless ARPU
month Per Capita	Social network visitors	Dominant Social Network Unique Visitors per
	SMS usage	SMS usage per subscriber

Analysis and Interpretation

Affordability
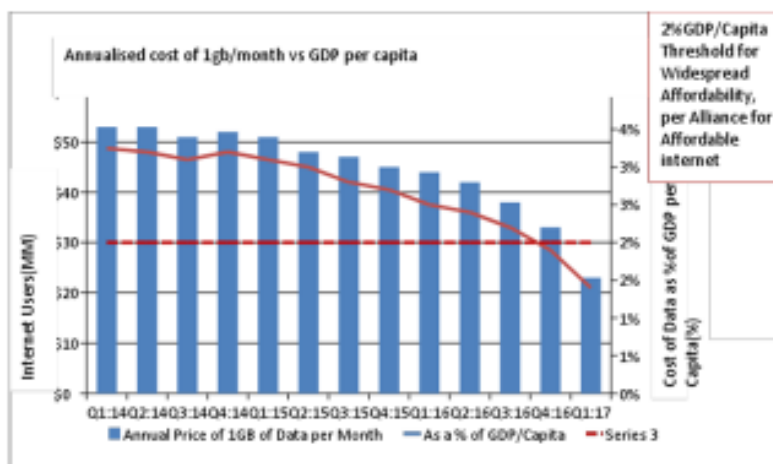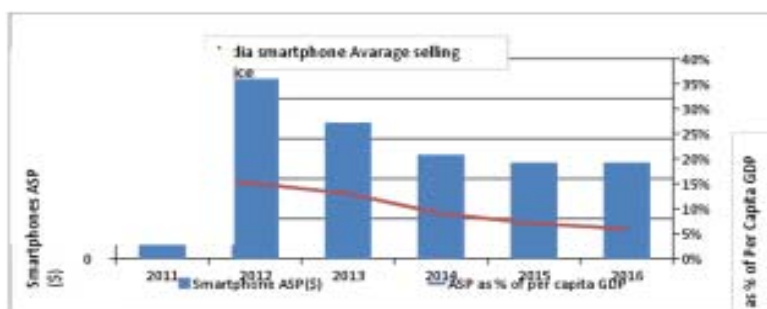
Infrastructure reliability- It's supported by telecommunications networks and attaining the maximum people of the federal land. A Variety of programs Undertaken by Government of India to enhance the infrastructure would be

1. Broad Band Highways: It insures three components Broad Band for most broadband, rural for most National and urban information infrastructures.

2. Universal use of Mobile Connectivity: '' It centers on system understanding and filling out the gaps in connectivity from the nation.

3. Public Access to the Internet Programme: To Offer Shared Services Centres (CSCs) and Article Offices as Multi Service centres.

4. E governance: Reforming Authorities through Tech: Government Process Reengineering utilizing it to simplify and create the us government procedures more effective is essential for transformation to earn the delivery of government services better across various government domain and so has to be executed with Ministries/ Departments.

5. E-Kranti: Electronic Delivery of Services: the Federal Government declared the National EGovernance Plan (NeGP), consisting 3-1 Mission Mode Projects (MMPs) and 8 elements. E-Kranti is a vital pillar of this Digital India initiative also there are 44 Mission Mode Projects under e-Kranti, which can be in various phases of execution. (includes Banking, postoffice, taxation, Land records, Agriculture, Gram Panchayats etc..)

6. Advice for many: Internet hosting of documents & information to ease open and effortless access to information to taxpayers

.7. Electronics Manufacturing: '' It targets boosting electronic in the nation with the aim of net-zero Imports by 2020 because of striking demonstration of aim.

8. IT for Jobs: '' It targets providing training to the youth at the skills required for procuring job chances while in the IT/ITES industry.

9. Historical Harvest Programmes: This is composed of these endeavours that should be executed in a brief timeline.

Network Access
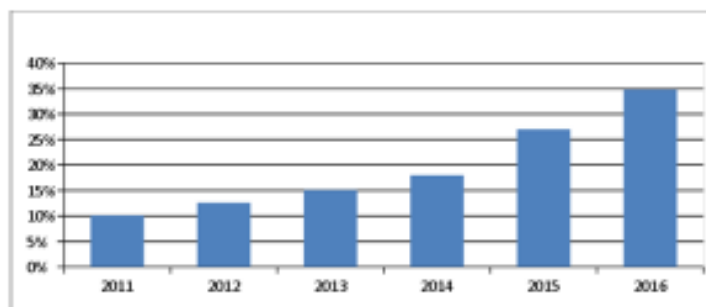
Internet penetration in India grew from just 10 per cent in 2011 to 34.08 per cent in 2016, registering a direct increase of 89 per cent in 2016 over 2007.

- Urban India with an estimated population of 444 million already has 269 million (60 per cent) using the Internet.
- Rural India, with an estimated population of 906 million as per 2011 census, has only 163 million (17 per cent) Internet users. There is therefore a great opportunity for increasing penetration in the rural areas.
- Analysis of 'Daily Users' reveal that both in Urban and Rural India, the younger generations are the most prolific users of internet.
- Rising internet penetration is expected to drive ecommerce growth in India.
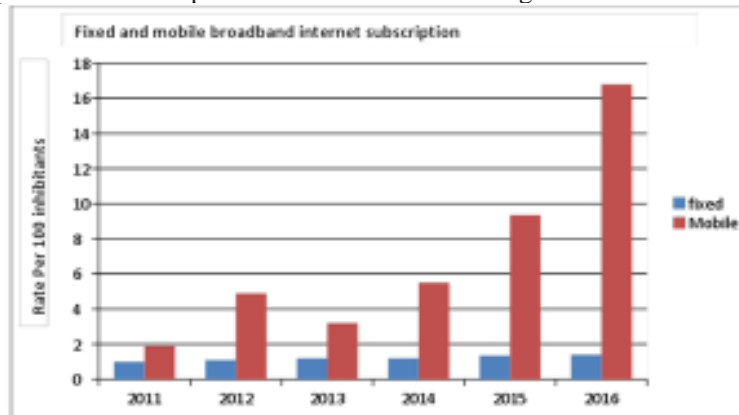
Indirect and indirect labour of this IT-BPM sector in India from the financial year 2009 to 2017 (in millions)

This statistic indicates the number of people working, either indirectly and directly, by the Indian IT and business process management (IT-BPM) industry from 2008/9 into 2016/17. Direct employment from the IT-BPM industry in India reached 3.9 million people from 2016/17. In the last ten years, the IT Industry has been blindsided with the huge tide of outsourcing out of foreign businesses. In 2014, the infrastructure outsourcing agency segment accounted for the most significant percentage of IT outsourcing spending India.
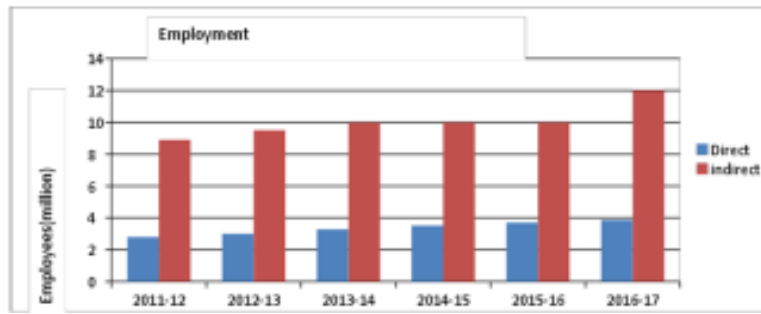
Usage

India internet users
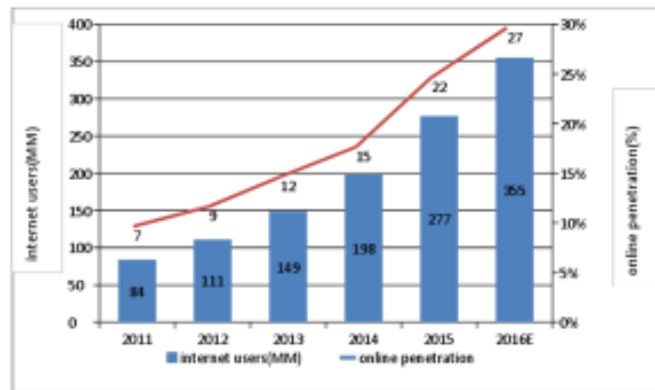
E governance
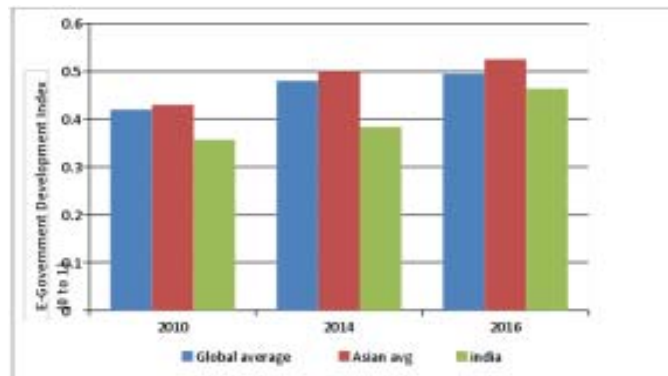
Digitalization and GDP Growth

Digitization being a vital economic driver from the world it's necessary to incorporate the economy by creating digital economies. Firms, productivity and prices would be the 3 benefits produced in the economy. It's seen in huge markets internet is the reason approximately 3.4 percent of GDP normally together side stable labour creation. Throughout world wide recession, 6 million jobs were generated worldwide by the digitization impacts and 94 percent were from emerging markets and 6 percent out of developed markets. This showcases the possibility of this digitization in creating job chances. Surveys show growing savings have more chances of benefiting from digitization compared to the developed markets as growing markets have a larger range of reducing inefficiencies and boost production. Back in India, rising net penetration, accelerated technology adoption and higher selling of gadgets such as tablets tablet computers, and so forth, have contributed to a appealing internet customer base and unparalleled increase of e commerce. World Economic Forum (2013) said in its own report which 10% boost in digitization score of almost any country would contribute 0.75% increase in its GDP per capita. Other studies concur its impact is 4.7 times greater compared to the ordinary effect of 0.16 percent over the per capita GDP for broadband installation (World Economic Forum, 2013). With the rise in online use e commerce businesses not merely increased their business enterprise into many advantages but also gave birth to both marketing services and service to the tiny sellers by enabling them to attain a more worldwide industry.

Figure-1 shows the trend line and regression equation of internet penetration and GDP. R^2 value is 0.9423. It means 94.23% variance in GDP in explained by increased internet penetration.

Trend line for internet penetration and GDP
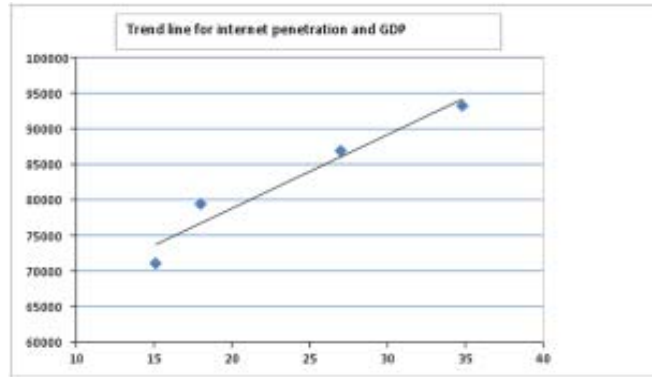
With the start of the electronic age, there's a gain in the automation process which assists in reduction of errors and gain in the production speed in addition to decrease the ineffective moves. Decrease in cost of industry is different from sector to industry and business to industry.

- Street lighting, that today forms 1.5 percent of overall electricity consumption (in accordance with McKinsey) from India, may be altered via digitization. Motion-detection lights may save 70 80 percent of costs and electricity, based on Cisco's prices.

- The Use of Bio Metric apparatus Assist in tracking the ghost workers and Lower the individual biases towards a particular worker

Creation of Jobs

Laying from this broadband system around 2.5 lakh village panchayats from the nation from 2018 Broad Band street may need a great deal of work and moving to develop a great deal of tasks for the reduced area of this society.With that the gain in the penetration of internet and technology, there is going to undoubtedly be a requirement to keep the apparatus therefore there is likely to soon be a huge demand of its maintenance group. To coach people there'll be demand of educators too. Figure-2 indicates the trendline and regression equation of online penetration and lead job creation. R 2 value indicates that 92.04 percent variance in employment will be clarified by individual changeable i.e. online penetration.

Trend Line of Internet Penetration and direct employment
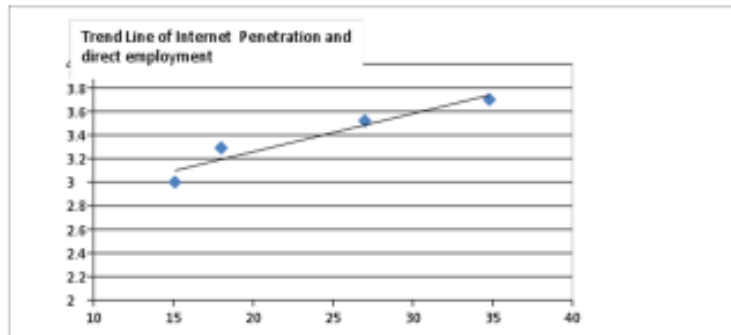
Figure-3 shows the Trend Line and regression equation of Internet Penetration and indirect employment. In this figure R^2 value is 0.4123. it means only 41.23% variance is explained.

Trend Line of Internet Penetration and indirect employment
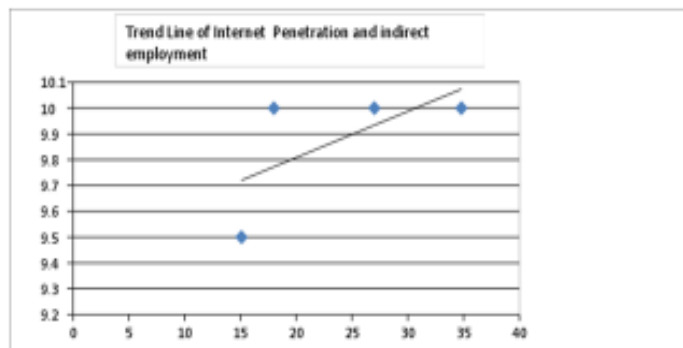
Obstacles in The Process of Digitalization

1. The resistance to change people show during the emergence of new technology.
2. Building trust among the people for change is difficult.
3. Lack of knowledge about its use and benefits.
4. Infrastructure requirements and their unavailability also hamper the reaching of these basic facilities to the people.
5. The basic hindrance is the lack of literacy and literacy is not just to be able to write ones name and do the signature but to have an understanding of the changes going in the technology, society and the country for their own betterment.

Conclusion

The digitalization brings innovation, ease of working, new job opportunities and growth in the economy. It helps to bring transparency to the system and more transparent are the flow of funds in the economy less is the problem of tax evasion, parallel economy etc. But with all these benefits available it also makes it necessary for the people to have the basic financial knowledge and a push towards the importance of the financial literacy. With the help of which they can protect their money in situations like inflation, depression, and know about different financial products and services to save it for their better future. Digitalisation can also play an important role in the achievement of this goal as it can have a greater reach to the people. By this, we can reach a conclusion that the new technology needs to harness well and for this, it is not only the availability but also the knowledge to use it and get benefits from it.

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Influence of Digitization on Economy and Creation of Jobs

Juhi Srivastava*

Abstract

The objective of the paper is to investigate the impact of digitization on economic growth and its potential for creating employment opportunities. Digitization being a key economic driver in the present world it is important to integrate the economy by creating digital markets. In recent years, digitization, the mass adoption of connected digital services by consumers, enterprises, and governments, has emerged as a major driver and enabler of socioeconomic benefits. Indeed, despite unfavourable global economic conditions, digitization can play a key role in assisting policymakers to spur economic growth and employment.

However, the impact of digitization by country and by sector is uneven. Developed economies enjoy higher economic growth benefits by a factor of almost 25 %, although they tend to lag behind emerging economies in job creation by a similar margin. The main reason for the differing effects of digitization is the economic structures of developed and emerging economies. Developed countries rely chiefly on domestic consumption, which makes non-tradable sectors important.

Across developed economies, digitization improves productivity and has a measurable effect on growth. However, the result can be job losses because lower skill, lower-value-added work is sent abroad to emerging markets, where labour is cheaper. By contrast, emerging markets are more export-oriented and driven by tradable sectors. They tend to gain more from digitization's effect on employment than from its influence on growth. The digitization would help India to compete with the matured economies, generate employment and have a steady increase in GDP providing socio-economic growth to the nation as a whole.

Keywords: *Digitization, Impact and Its Role, Economic Growth, Employment.*

Introduction

In, today's digital society, all knowledge is divided into two binary strings, 0s and 1s that codified the data, which allow people to create, control, and share data in ways that to be revolutionary. Digitization is of crucial importance to data processing, storage and transmission; because it "allows information of all kinds in all formats to be carried with the same efficiency and also intermingled". Emergence of digitization followed by proliferation of e-commerce has profound impact on the productivity and socio economic standard of the society. Evolution of technology and associated information and knowledge help establish society's production capacity and standard of living which are decisive to the economic growth of the nation. Right information to the right user at the right time has been the aim of information professionals. Recent developments in the information and communication technologies, especially the Internet and the Web based technologies have brought significant changes in the ways the information generate, distribute, access and use. These technologies play an important role to minimize the problems in using information at its earliest.

Digitization

Digitization, from societal perspective, has been defined as "the economic and social transformation triggered by the massive adoption of digital technologies to generate, process, share and transact information".

According to Pearce-Moses (2005) ‾Digitization is the process of transforming analog material into binary electronic (digital) form, especially for storage and use in a computer . Digitization converts materials from analog formats that can be read by people to a digital format that can be read only by machines. The devices like scanner, cameras, and a number of other devices can be used to digitize knowledge contents. These technologies allow the digitization of almost all types of materials, including paper documents, rare documents, photographs, sound recordings, and motion pictures.

Information is created in various formats at an accelerating rate through various media and it is become increasingly complicated to remain abreast in this overflow of literature without the help of information technology. Digitization improves access to information resources. Digital projects allow users to search for collections rapidly and comprehensively from anywhere at any time. The process of digitization makes the invisible to be visible. A number of users can access

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the same document at the same time without hindrance. It also removes the trouble of distance, as users do not have to travel to locations that possess the hard copies of materials. Although, digitization is a time consuming and very expensive venture, but, it is a powerful way to cope up with the problems of persistent shortage of periodicals and other technical literature in institutions, universities and technological schools in the developing world. Numerous organizations and institutions are taking initiatives in digitizing their documents,archives of newspapers, artifacts, theses and dissertations and other historical documents.
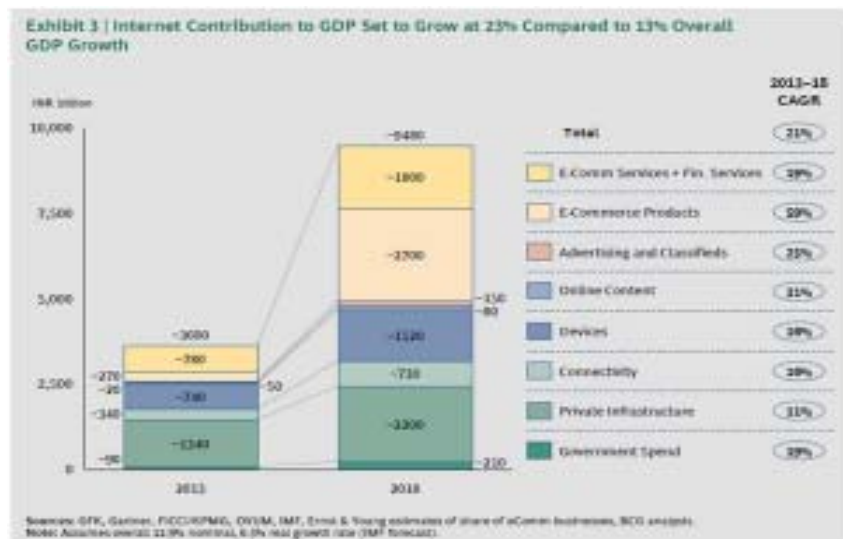
Figure 1: Internet Contribution to GDP

Digitization—the mass adoption of connected digital services by consumers, enterprises, and governments—has emerged in recent years as a key economic driver that accelerates growth and facilitates job creation. In the current environment of a sluggish global economy, digitization can play an important role in assisting policymakers to spur economic growth and employment.

However, the impact of digitization by country and by sector is uneven. Developed economies enjoy higher economic growth benefits by a factor of almost 25 percent, although they tend to lag behind emerging economies in job creation by a similar margin. The main reason for the differing effects of digitization is the economic structures of developed and emerging economies. Developed countries rely chiefly on domestic consumption, which makes nontradable sectors important. Across developed economies, digitization improves productivity and has a measurable effect on growth. However, the result can be job losses because lower skill, lower-value-added work is sent abroad to emerging markets, where labor is cheaper. By contrast, emerging markets are more export-oriented and driven by tradable sectors. They tend to gain more from digitization's effect on employment than from its influence on growth.

Impact of Digitization

Impact of digitalization on a country can be assessed on the basis of its **impact** on the government, on the **economy** and the society. ... The **digitalization** has created new job opportunities, have led to innovation in very sector and also led to the growth of the **economy** i.e. have helped in the GDP growth of the country.

In recent years, digitization, the mass adoption of connected digital services by consumers, enterprises, and governments, has emerged as a major driver and enabler of socioeconomic benefits. Indeed, despite unfavorable global economic conditions, digitization can play a key role in assisting policymakers to spur economic growth and employment. However, according to management consulting firm Booz & Company's econometric analysis, its impact on countries and sectors strongly varies. Across developed economies, digitization improves productivity and has a measurable effect on growth; yet, it can lead to job losses. By contrast, emerging markets tend to gain more from digitization's effect on employment than from its influence on growth. To better channel the outcome of digitization, policymakers need to plan for how they digitize specific sectors and encourage the development of capabilities and economic enablers to help achieve maximum impact.

However, the impact of digitization by country and by sector is uneven. Developed economies enjoy higher economic growth benefits by a factor of almost 25%, although they tend to lag behind emerging economies in job creation by a similar margin. The main reason for the differing effects of digitization is the economic structures of developed and emerging economies.

Developed countries rely chiefly on domestic consumption, which makes non-tradable sectors important. Across developed economies, digitization improves productivity and has a measurable effect on growth. However, the result can be job losses because lower-skill, lower-value-added work is sent abroad to emerging markets, where labour is cheaper. By contrast, emerging markets are more export-oriented and driven by tradable sectors.

They tend to gain more from digitization's effect on employment than from its influence on growth. Policymakers can harness these varying effects of digitization through three main measures, which go beyond their current roles of setting policy and regulations. First, they should create digitization plans for targeted sectors in which they wish to maximize the impact of digitization.

Second, they should encourage the development of the necessary capabilities and enablers to achieve these digitization plans. Finally, policymakers should work in concert with industry, consumers, and government agencies to establish an inclusive information and communication technologies (ICT) ecosystem that encourages greater uptake and usage of digital services.

Figure 10
Impacts of digitalization on supply chain management

% of respondents seeing "clear" or "very strong" effect by 2017

Increase JIT sourcing, reduce order-to-stock	43%
Decentralize inventories to meet delivery time requirements	30%
Streamline route-to-market by taking out wholesalers or retailers	28%
Turn multi-day deliveries in Europe into 24-hour deliveries	27%
Reduce overseas delivery times	25%
Individualize shipment batch sizes	23%
Turn next-day deliveries into same-day deliveries	22%
Reduce number of logistics partners in transportation	20%
Reduce order batch sizes	20%
Reduce shipment sizes	18%
Turn fixed-day deliveries into time-definite deliveries	17%
Turn LTL into parcel shipments	17%
Reduce number of logistics partners in warehousing and value-added services	10%
Turn make-to-stock into make-to-order (or purchase-to-order)	10%

Note: JIT is just in time, and LTL is less than truckload.
Source: European A.T. Kearney/WHU Logistics Study 2015

Figure 2: Impact of digitization of supply chain management

Impact on Unemployment

Digitization creates jobs, with a 10 point increase in the digitization score leading to a 1.02% drop in the unemployment rate.In 2011, digitization had the greatest employment effect in constrained and emerging digitized economies. East Asia, South Asia, and Latin America received the most employment growth of all regions, with more

than 4 million jobs created as a result of these regions' digitization improvements. Conversely, digitization provided little employment growth in North America and Western Europe. These advanced-stage economies probably realize fewer employment benefits because, as their digitization increases, their productivity improves; some jobs get replaced by technology; and lower-value- added, labor-intensive tasks go overseas to emerging markets where labor is cheaper. By contrast, digitization has more significant employment effects in emerging markets for three main reasons. First, the digitization gain in some

Share of Service Sector in GDP and Employment

- Gross Value Added (%)   ■ Employment (%)

www.equitymaster.com   Source: Economic Survey 2016-17
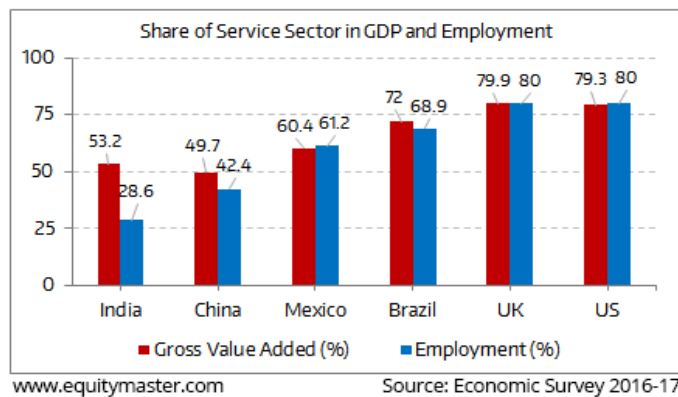
Figure 3: Share of Service in GDP and Employment

has enabled companies to move labor-intensive tasks to emerging economies while competing to develop the best design and user interface. For example, Samsung acts as a supplier to Apple for its iPhone products, but both compete aggressively in the consumer market by trying to differentiate themselves in their design and user interface. Digitization is also leading to the emergence of new manufacturing technologies, with the advent of 3-D printing creating a new way to manufacture complex products and leading to the import of jobs back to developed economies.

- Operations: Finally, digitization has had the greatest impact on the way companies organize and operate to generate competitive advantage. Digitization has created more global entities, seamlessly in touch across continents, and has redefined the concept of office space. One in four American workers regularly telecommutes, a fact that has a profound impact on how companies organize and manage resources.

Digitization is also allowing companies to outsource or completely automate a number of their back-end functions, enabling them to become more efficient. For example, if digitization significantly enhances market access, then job growth will be more likely in that sector. However, if digitization primarily drives efficiency growth but does not lead to new market creation, then that sector is likely to lose jobs.

To better understand these dynamics, we examined five key economic activities in developed markets that would yield conclusions that can guide policy responses. We identified these five areas by initially dividing the overall economy into three major sectors: primary, secondary, and tertiary.4 the primary sector relates to agriculture, farming, and mining—the extraction, collection, and primary processing of natural materials.

Economic Impacts of Digitization

The consequences of the developments in the technicalities of Information and Communication Technology introduces the concept of digitization. The transformation from print to digital media for communication of information to the larger community is resulted from the growth of the Internet and now enables the tremendous amount of information accessible to everyone.

By the process of digitization, knowledge to an ever greater amount is being produced, processed, communicated and preserved digitally. The economics related to the concept of digitization is two-fold. The first one, how economic is the process of digitization? And second, its impact on the economy of the countries.

Impact of Digital Transformation on Jobs and Skills

The workshop will address the impact of the digital transformation on jobs and skills policy as an important response to the challenges due to digitization.Digitization has been changing Europe's societies and economies for the last twenty years, and this evolution is gaining speed. The transformative powers of artificial intelligence, big data, Internet of Things, mobile and block chain technologies are on course for a fourth industrial revolution. This development is overwhelmingly for the good, improving living standards, life expectancy and quality of life. Nevertheless, it can also have disruptive effects, most notably on labor markets.

It is critical for social cohesion and the sustainability of our social models and for strong democratic institutions that rapid technological change is effectively managed so as to maximize the benefits and minimize the negative effects. This includes equipping our citizens at all ages with the tools and capacities to participate fully and successfully in this digital transformation.

The workshop will analyze the impact of these developments and discuss policy options to respond to these challenges.

Role of Digitization in Today's World:

In today's growing age of cut-throat competition, businesses need to have an edge for the survival of the fittest! The business world is like a malleable alloy, which changes with the environment it is in. Gone are the days of direct sales. Hail the era of indirect sales at the subconscious level. It's high time for a radical makeover!

Customers, though invaluable, are like pampered children. All the credit goes to 'big fish' such as Google, Apple, Adobe, and Amazon. Customers, today, are tired of repetitive proposals, expect swift services, and sick of sweet talking political hacks. They want time critical turnkey solutions that are real time based and location based with little to no errors.

Digitization, means converting data at machine level analog into a user friendly readable digital format. It may involve integration of old skills and new technologies and trends. There are a lot of benefits such as overhead costs reducing by a whopping 80% and improved response turnaround times. Taking the example of a travel company, it can provide location based services such as developing mobile applications that provide travel friendly navigational information, shortest path to reach nearest hospitals, restaurants in a new city, country. If one is an avid trekker or wildlife photographer, he can benefit from an app that gives all the information on a species of flora or fauna in minutes after scanning a picture the person has just taken from his mobile phone..

Thus, in retrospect, digitization helps an organization to be more alert to changing business values, customize products and responses with clients on a personal level, and, most importantly, to streamline and automate all processes so that workers can focus on things that really matter most in business, the 'human touch'! In short, we can say to increase the presence of a company in the society, and in turn raise more awareness and goodwill in the environment, digitization, really is the 'lifeline' of any business.

Need For Digitization

The basic idea of digitization is to make full use of ICT facilities for accessing worldwide resources and beneficial for society at the same time. As going digital is the need of the hour, to remain environment healthy and safe.

Various organizations are involved in digitizing their material because they remain influenced of the enduring value of such resources for learning. Digitization also raises the reputation of the institutions as global users can know the institutional collection and utilize these resources from distant locations.

The main reasons to digitize are to enhance access and improve preservation. By digitizing their collection, institutions can make information accessible that was previously only available to a select group of users. Digitization can also help preserve materials making high-quality digital images available electronically and may reduce wear and tear on brittle and fragile documents.

Benefits of Digitization

Developing a digital substitute of rare, brittle or fragile original documents can provide access to users while preventing the original from damage by handling or display. This is themotivation behind the digitization of many artifacts. Following are the certain benefits of digitization.

- The documents can be viewed from anywhere, at any time of the day
- The documents can be printed directly from the web
- Users can find what they are looking for promptly and independently
- It can save staff reference time by answering frequently asked questions on the web
- It can enhance images electronically so that they can be viewed with greater legibility
- It increases use of collections and facilitates learning and scholarship
- The documents do not have to be re-shelved or located by staff
- The documents are not handled frequently which lessen wear and tear.

Enable The Creation of More Digital Jobs

Digital jobs—which include both the direct technology jobs and the jobs where technology is a key tool for workers—have a number of positive characteristics. Even if the number of these jobs is relatively small, they are critical, as they create a capacity for technological innovation and adoption in an economy. No economy might be able to remain competitive if they do not invest some effort in developing this workforce. These digital jobs will be created by private sector firms (and to some extent by public organizations) that innovate and grow. Hence, the focus for governments here are to create the conditions where these firms can start up, grow, and flourish. Governments can thus enable the creation of more of these digital jobs by:

- Creating the enabling policy and regulatory environment for entrepreneurship and innovation
- Appropriate financing to support innovative startups and enterprises;
- Investing in the national innovation infrastructure, including telecommunications and cyber security and ensuring services are available and appropriately priced to ensure widespread access;
- Positioning the public sector as a demand-driver or 'anchor tenant' in adopting technology to catalyse private investment and innovation;
- Investing in the complementary infrastructures to ensure reliable electricity supplies, efficient logistics and safe transportation for workers; and
- Connecting educators with employers to reduce the lag in educational systems' and skills development programs' responsiveness to changing industry needs to ensure these digital jobs are filled. Increase access to digital tools
- The various digital tools that now exist create an opportunity for workers to use technology in ways that are complementary, allow for efficient transactions, and link them to markets and resources.

Technology, Jobs and Future of Work

Automation, digital platforms, and other innovations are changing the fundamental nature of work. Understanding these shifts can help policy makers, business leaders, and workers move forward. **The world of work is in a state of flux,** which is causing considerable anxiety—and with good reason. There is growing polarization of labour-market opportunities between high- and low-skill jobs, unemployment and underemployment especially among young people, stagnating incomes for a large proportion of households, and income inequality. The development of automation enabled by technologies including robotics and artificial intelligence brings the promise of higher productivity (and with productivity, economic growth), increased efficiencies, safety, and convenience. But these technologies also raise difficult questions about the broader impact of automation on jobs, skills, wages, and the nature of work itself.

The Challenges of Digitization—and Possible Solutions

We have yet to reach the full potential of digitization across the global economy. Making sure that digital gains are accessible to all could provide significant value. And though other challenges, too, remain, they could be addressed by exploring several solution spaces—for instance, through evolving education systems or by pursuing public-private partnerships to stimulate investment in enabling infrastructure.

We are Only Starting to Capture the Opportunities From Digitizing Economies at The Sector and Company Level

Digital technologies are creating major new opportunities for workers and companies, in both advanced and developing economies, but there are significant variations within and across countries and sectors. Our use of the term digitization (and our measurement of it), encompasses:

1. Digitization of assets, including infrastructure, connected machines, data, and data platforms;
2. Digitization of operations, including processes, payments and business models, and customer and supply chain interactions; and
3. Digitization of the workforce, including worker use of digital tools, digitally skilled workers, and new digital jobs and roles.

In measuring each of these various aspects of digitization, we find relatively large disparities even among big companies Based on these measures, a few sectors are highly digitized—for example, financial services, media, and the tech sector itself. These tend to be among the sectors with the highest productivity growth and wage growth.

Companies that are digital leaders in their sectors have faster revenue growth and higher productivity than their less-digitized peers. Their profits and margins can increase three times as fast, and workers within these companies enjoy double the wage growth. Digitization will continue to change how companies organize work, as well as the mix of work in any given sector. All this will require ongoing adaptation and transition by workers in terms of skills, activities, companies, and even the sectors they work in.

How To Positively Affect The Future of Work: Solution Spaces

The disruptions to the world of work that digital technologies are likely to bring about could pose significant challenges to policy makers and business leaders, as well as workers. There are several solution spaces to consider:

- **Evolve education systems and learning for a changed workplace**. Policy makers working with education providers (traditional and nontraditional) could do more to improve basic STEM skills through the school systems, put a new emphasis on creativity as well as critical and systems thinking, and foster adaptive and life-long learning.

- **Determine how the private sector can drive training.** Companies face gaps in skills they need in a more technology-enabled workplace. They could benefit from playing a more active role in education and training, including providing better information about needs to learners and the education and training ecosystem, and proving better learning opportunities themselves.

- **Create incentives for private-sector investment to treat human capital like other capital.** Through tax benefits and other incentives, policy makers can encourage companies to invest in human capital, including job creation, learning and capability building, and wage growth.

- **Explore public-private partnerships to stimulate investment in enabling infrastructure.** The lack of digital infrastructure is holding back digital benefits in many economies, both developing and developed; public-private partnerships could help address market failures.

- **Rethink incomes.** If automation (full or partial) does result in a significant reduction in employment or greater pressure on wages, some ideas such as universal basic income, conditional transfers, and adapted social safety nets could be considered and tested.

- **Rethink transition support and safety nets for workers affected.** As work evolves at higher rates of change between sectors, locations, activities, and skill requirements, many workers will need assistance adjusting. Many best-practice approaches to transition safety nets are available and should be adopted and adapted, and new approaches considered and tested.

- **Embrace technology-enabled solutions**. Such solutions, including richer information signals, can be used in the labor market to improve matching and access and bridge skills gaps. Policy makers will need to address issues such as benefits and variability that these digital platforms can raise.

- **Focus on job creation**. Accelerate the creation of jobs in general through stimulating investment in businesses, and accelerate the creation of digital jobs in particular—and digitally enabled opportunities to earn income—including through new forms of entrepreneurship.

- **Innovate how humans work alongside machines**. Greater interaction will raise productivity but require different and often higher skills, new technology interfaces, different wage models in some cases, and different types of investments by businesses and workers to acquire skills.
- **Capture the productivity benefits of technology**. These can be harnessed to create the economic growth, surpluses, and demand for work that create room for creative solutions and ultimately benefit all.

Conclusion

Digital conversion of print sources has improved rapidly in the past few years. Digitization is the social transformation started by the massive adoption of digital technologies to generate, process, share and manage digital information. Digitization is an inclusive technique of

preservation and access by which all the institution's assets are transformed into digital and creating high-quality copies in digital format. It provides advanced opportunities for preservation and access to knowledge contents, also it changes the ways in which collections are used and accessed.

Ever since Adam Smith proposed the theory of absolute advantage enjoyed by a country in producing a good or service, policymakers have sought to build and maintain this advantage in key sectors of their economies.

Digitization is emerging as a new tool to build and sustain such absolute advantages, and in some cases even to claim the "right to win" and beat the competition in certain sectors—a critical capability that underpins all other national economic efforts.

Creating digital markets and boosting digitization can yield significant economic benefits and lead to substantial social benefits to societies and communities. Digitization has the potential to boost productivity, create new jobs, and enhance the quality of life for society at large.

The Varying Effects of Digitization on Economic Growth and Job Creation – A Global Perspective. Across developed economies, digitization improves productivity and has a measurable effect on growth; yet, it can lead to job losses.

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Accomplish 2030 Health Agenda Through Mobile Services: Indian Scenario

Vani Aggarwal* & Dr. Meenal Sharma Jagtap**

Abstract

Despite a significant progress on Millennium Development Goals (MDGs 4&5), mortality of under five yearschildren is still high and women die during their pregnancy. The unfinished targets are included in the Sustainable Development Health Goal (SDG3) to reduce child and maternal mortality globally. This study is focused on the impact of new technologies specifically mobile applications on the healthcare services. The simple regression model is used to quantify the relation between mHealth and mortality (child and maternal). Using regression analysis on a dataset of Indian economy covering the period from 1995 to 2015, this paper provides an econometric evidence that child & maternal mortality relates to mobile subscribers, internet users,total health expenditure, public health expenditure, improved sanitation facilities, female education and gross domestic per capita product.

The results imply that mobile phone has a statistically significant favorable impact on maternal mortality; butestimated coefficients on internet users are significant for both child mortality (IMR and U5MR) and maternal mortality. This outcome can benefit the policymakers in policies formulation aiming to reduce child and maternal mortality in a developing country like India. The pilot studies such as Kilkari, mSakhi, Mobile Academy in India proves the significance of the usage of mobile phone with respect to child/maternal mortality reduction.

There is a need to tap the potential market of mHealth services for healthcare deliveries in India to make affordable access of medical services and health information on safe pregnancy, child nutrition &saftey. Government should take bold initiatives to implement these services at reasonable rates and improve infrastructure facilities to facilitate mobile services in each and every corner of India.

Keywords: MHealth, Child Mortality, Maternal Mortality, Regression

Introduction

Since globalizationboth developed and developing countries have made advances in the reduction of both maternal mortality (fell by 45% worldwide) and child mortality (declined by 50%)(UNDP, 2015).[1]Health conditions have been improved in developing countries like India as maternal mortality ratio improved from 600 per 100,000 live births to just over 174 in 2015 (Table 1). In addition, 74% of the births in India are attended by skilled health personnel in 2015, however India still accounts for nearly 20% of maternal deaths globally.

Table 1. Health Indicators (India)

Health Indicators	2000	2015
Total health expenditure (% of GDP)	4.2%	4.7%
Life expectancy at birth	62.5 years	68.3 years
Healthy life expectancy	54.2 years	59.6 years
Maternal Mortality Rate (per 100,000 live births)	600	174
Under- five Mortality Rate (per 1000 births)		47.7
Births attended by skilled health personnel (%)		74

Source: Health Statistics 2017[2]

Despite this significant progress, mortality of under five years children isstill high and women die during their pregnancy. People are fighting against preventable disease like tuberculosis and measles as deaths can be controlled by immunization, health awareness, treatment, accessible reproductive healthcare. Both the public and private sectors are taking initiatives to fight against mortality and new technologies such as electronic health (eHealth), mobile health (mHealth) are emerging

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opportunities in this direction. These ICT (Information and Communication Technology) tools facilitate easy and affordable access to healthcare services even in remote areas.

Health is centrally placed in the 2030 health agenda[3] and framed as a contributor to many other SDGs (Figure 1).The agenda was adopted by the UN General Assembly in September 2015 (replace the MDGs) and came into force in January 2016 to achieve "integrated and indivisible" 17 Sustainable Development Goals (SDGs) and 169 targets for social, environmental and economic development.The potential priority areas for health includes universal health coverage (UHC), focus on health equity, target risks and implement inter-sectoral actions with a close monitor of progress(WHO, 2015).
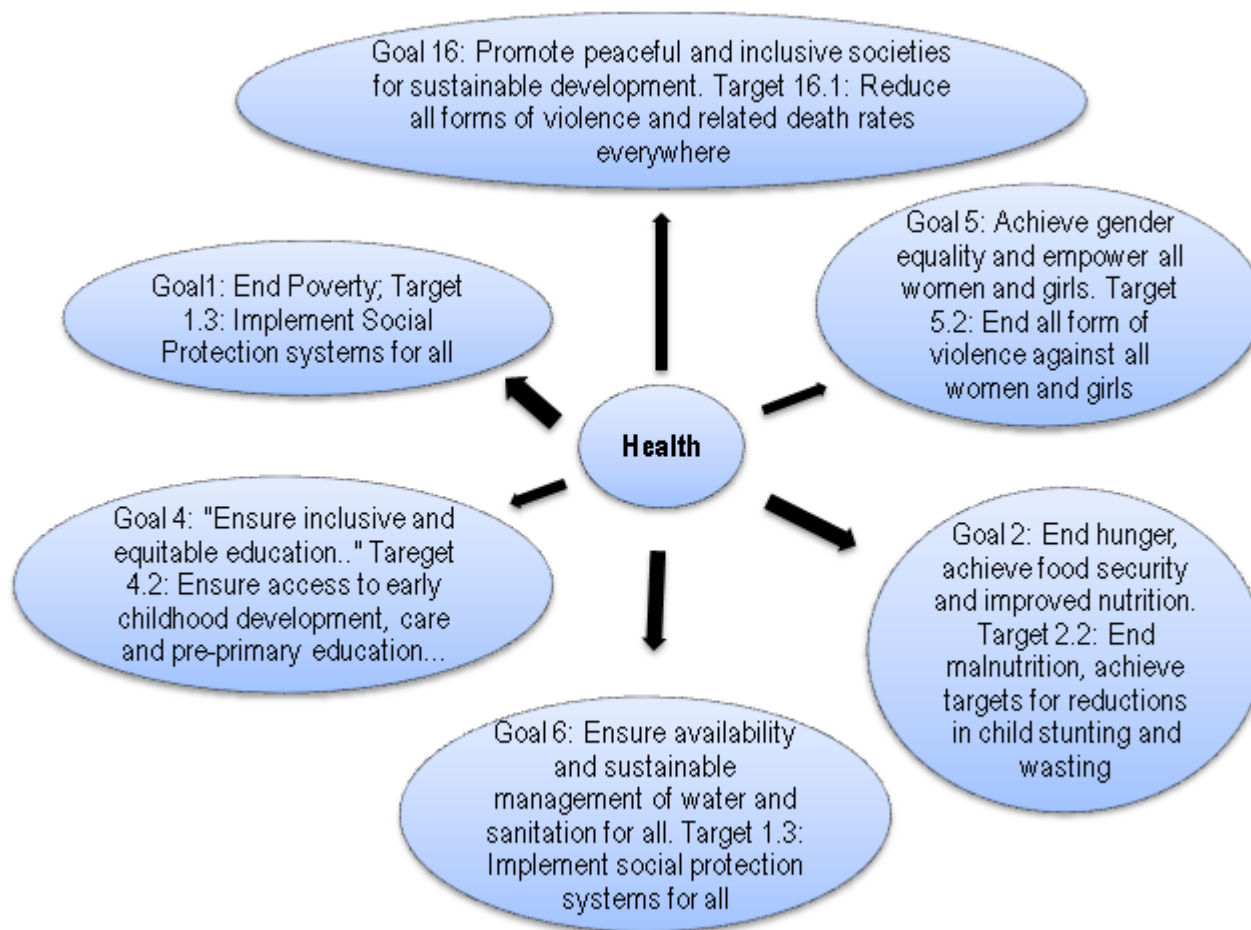
Figure 1: Health is linked to Other SDGs

Source: (WHO, 2016)[4]

Determinants of health and risk factors are been identified by the WHO to promote healthy lives and well-being; risk factors are food security & nutrition, water & sanitation, energy, climate change. Major determinants of health which effects indirectly are poverty, education, gender equality, economic growth, employment, infrastructure, innovation. This paper addresses the various health issues (child mortality, maternal mortality) in developing countries by accessing the global health condition and sustainable health goal (SDG3). It is focused on the innovation and digitization in healthcare deliveries to make health services accessible. With the help of simple regression, this paper has quantified the relation between mHealthand mortality in India. In the conclusion, it provides some recommendations to the policy makers that how mHealth could reduce the mortality and would help to achieve SDG3.

Sustainable Health Goal (SDG3) and mHealth

There are 13 broad targets in the health goal[5]that focused on the acceleration of sustained improvements in health of the nation (Table 2).It can be categorized into three dimensions covering a wide spectrum of health aspects: "the unfinished and expanded MDGs agenda, the new SDG-3 targets and the means of implementation, with Universal Health Coverage (UHC) being the overarching umbrella" (WHO, May 2016)[6].

Table 2: Sustainable Development Goal 3[7] and Its Targets

MDG unfinished and	New SDG3 targets	SDG3 means of Implementation expanded agenda targets
3.1: Reduce maternal	3.4: Reduce mortality from NCD and mortality	3.a: Strengthen implementation promote mental health of framework convention on tobacco control
3.2: End preventable newborn and child deaths	3.5: Strengthen prevention and treatment of substance abuse	3.b: Provide access to medicines and vaccines for all, support R&D of vaccines and medicines for all
3.3: End the epidemics of HIV, TB, malaria and NTD and combat hepatitis, waterborne and other communicable diseases	3.6: Halve global deaths and injuries from road traffic accidents	3.c: Increase health financing and health workforce in developing countries
3.7: Ensure universal access to sexual and reproductive health-care services	3.9: Reduce deaths from hazardous chemicals and air, water and soil pollution and contamination	3.d: Strengthen capacity for early warning, risk reduction and management of health risks

Source: (WHO, 2016)

The paper is focused on the maternal and child health, the impact indicators show that accelerates reduction in newborn, child and maternal mortalityare priority potential area under SDG3 (Table 3). Although, there are some bottlenecks such as lack of quantum care, human resources, infrastructure. Hence to overcome these bottlenecks, new technologies/digitization are adapting by the countries in the maternal and child healthcare sector.

Table 3: Selected SDG targets and Proposed Indicators linked to Reproductive Maternal New Born and Child Health (RMNCH)

Indicators	SDG target	Proposed Indicator
Impact	3.1	Maternal mortality
	3.2	Under-five mortality
	3.2	Neonatal mortality
	3.7	Adolescent birth rate
	3.9	Mortality due to unsafe water, sanitation and hygiene;
Coverage	3.1	Births attended by skilled health personnel
	3.7	Family planning coverage
	3.8	UHC: RMNCH* tracers (family planning, antenatal and delivery care, full immunization coverage, health-seeking behavior for suspected child pneumonia)
	37 (22)	Model life table systems
Risk factors/ determinants	2.2	Child stunting, child wasting, child overweight
	6.1	Access to safely managed drinking-water source
	6.2	Access to safely managed sanitation
	7.1	Clean household energy
	11.6	Ambient air pollution
	Other	Part of targets in goals on poverty, education, gender etc

Source: (WHO, Health in the Sustainable Development Goals, 2016)[8]

The provision of health-related services via mobile technology is called mHealth, abbreviated version for mobile Health (United, 2009). The benefits of mHealth services can be achieved by using mobile devices, such as mobile phones, patient monitoring devices, personal digital assistants (PDAs), and other wireless devices. It involves the use and capitalization on a mobile phone's core utility of voice and short messaging service (SMS) as well as more complex functionalities and applications including general packet radio service (GPRS), third and fourth generation mobile telecommunications (3G and 4G systems), global positioning system (GPS), and Bluetooth technology(WHO, 2011).Dr.HenkBekedam, WHO Representative to India placed health as a priority in the national and state agenda with a need to increase government health budget and implementation of universal health coverage. Further he added, it is necessary to strengthen health infrastructure in rural areas of India and requires a   strong monitoring and evaluation system in the healthcare(WHO, May 2016).

David Levy, global health care leader at PwC, stated "mHealth is the future of health care, deeply integrated into delivery that will be better, faster, less expensive and far more customer-focused." Further he added that "despite demand and the obvious potential benefits of mHealth, rapid adoption is not yet occurring, the main barriers are not the technology but rather systemic to health care and inherent resistance to change"(UPENN, 2012).

According to the International Telecommunications (ITU), it is estimated that there were almost 7 billion mobile-cellular telephones in use worldwide by the end of 2016, equivalent to about 95 per cent of the world population. The ubiquity of mobile technology offers a tremendous opportunity in the healthcare sector to access health facilities at reasonable rates. According to the UNDP report (2017)[9], total mobile phones subscriptions in India are 78.8 per 100 people with 26 per cent of the total population are internet users.

Model Specification

The simple regression model is used to quantify the relation between mHealth and mortality (child and maternal). Using regression analysis on a dataset (Appendix 1) of Indian economy covering the period from 1995 to 2015, this paper provides econometric evidence (stata results) that mobile phones has a statistical favorable impact in reducing maternal mortality. However, it does not a statistically significant impact of mobile phones in reducing child mortality in India. Internet connections have statistical significant results in reducing both child and maternal mortality in the country. There are other factors also included in the model such as total health expenditure, public health expenditure, improved sanitation facilities, female education and gross domestic per capita product to check their significance. Table 4 provides a description of all the variables used in the regression model of the study.

Table 4. Variables Description

Variable	Description
Infant Mortality Rate (IMR)	Deathsper 1,000 live births under age one
Under five Mortality Rate (U5MR)	Probability of deaths per 1,000 live births under age 5
Maternal Mortality Rate (MMR)	Women deaths Number of women per 100,000 live births while pregnant or within 42 days of pregnancy termination..
Mobile Users (MU)	Mobile-cellular subscription per 100 inhabitants
Internet Users (IU)	Percentage of individuals using the Internet
Public Health Expenditure (PE)	Percentage of public health expenditure of total health expenditure
Total Health Expenditure (TE)	Percentage of total health expenditure of GDP
Improved sanitation facilities (ISF)	Percentage of population using improved sanitation facilities
Adult literacy rate, female (FLR)	Percentage of female above 15 years and above who can both read and write with understanding a short simple statement about their everyday life.
GDPPC	Per capita Gross domestic product in constant 2011

Source: World Development Indicators[10] and UN Data[11]

The model is as follows:

Mortality Rate (IMR, U5MR,MMR) = Q (MU, IU, PE, TE, ISF, FLR, GDPPC)

Where,

Dependent variables are: IMR, U5MR, MMR

Independent variables are: MU, IU, PE, TE, ISF, FLR, GDPPC

Confidence Interval: 95%

For child mortality, the model considered under-five mortality and infant mortality as dependent variable. Further, mobile users are considered as proxy for mHealth indicator. This model estimated the significance of mobile phones and internet in reduction of child and maternal mortality in India. Later, it would be helpful for the policymakers to decide on the public health policies and usage of mHealth applications to achieve health goals.

In India, technological improvements are being increasingly used to improve healthcare services such asmobile Health (mHealth) & telemedicine, Big Data and Analytics, Cloud Database, Awareness & timely reporting and Medical training & education(Dey, 2016).Also, private sector organizations established an emergency toll-free telephone services for transportation dispatch during an emergency(WHO, 2011).mHealth enables both public and private sectors in regards to innovation and efficiency, helps to improve access and quality while at the same time provides dramatic innovation and cost reduction opportunities (PWC, 2012).

It is vital to quantify the relation between mHealth and mortality and analyze the role of mobile services in healthcare. Role of digitization is constantly increasing in the medical area and it is necessary to analyze the efficiency of mobile applications in a middle income country like India to reduce child and maternal mortality rates. Hence, the later sections of the study provide statistical results of the regression model and empirical results to support the argument.

Results

The result implies that mobile phone has a statistically significant favorable impact on maternal mortality but insignificant in the case of child mortality whereas the estimated coefficients on internet users are significantin both the cases (child and maternal mortality) (Table 5). The estimated coefficients of public health expenditure are almost statistically insignificant while the estimated coefficient ofimproved sanitation facilities is negatively significant. The insignificance of total health expenditure may results of the inefficient public health expenditure or can be a justified as misallocation of resources.

Empirically, mHealth is applied in several fields including maternal and child health, HIV/AIDS, malaria, and tuberculosis and it is likely to have a greater effect on how care is delivered than other devices as these devices are ubiquitous and personal(WHO, 2011). Moreover, low prices of phones with high functionality and mobility increase the variety, velocity, volume and value of information they send and receive (PWC, 2012). Telecommunication companies are extending their network further into rural India due to better infrastructure, roads and availability of electricity. This would drive the impact of mHealth interventions on mortality. According to the ITU, mobile-broadband networks (3G or above) reach 84% of the global population with a coverage of 67% rural population (ITU, 2016).

Table 5. Statistical Results of Regression Analysis (CI 95%)

	MU	IU	PE	TE	ISF	FLR	GDPPC
	Dependent Variable: Maternal Mortality Rate						
p	0.015 significant	0.000 significant	0.648 insignificant	0.684 insignificant	0.000 significant	0.499 insignificant	0.629 insignificant
t	2.79	11.35	0.47	0.42	-8.56	0.69	0.50
	Dependent Variable: Infant Mortality Rate						
p	0.176 insignificant	0.0000 significant	0.825 insignificant	0.344 insignificant	0.235 insignificant	0.299 insignificant	0.717 insignificant
t	-1.43	-5.08	0.23	0.98	-1.24	-1.08	-0.37
	Dependent Variable: Under-five Mortality Rate						
p	0.172 insignificant	0.000 significant	0.810 insignificant	0.349 insignificant	0.238 insignificant	0.292 insignificant	0.702 insignificant
t	-1.44	-4.97	0.25	0.97	-1.24	-1.10	-0.39

Source: Author's Calculation

Empirical Results

In India, the pilot studies prove the significance of the mobile phone with respect to reduction of child/maternal mortality. These studies in the maternal and child health in India include projects such as mSakhi(IntraHealth, 2012), Kilkari, Mobile Academy, etc. The community workers (ASHA) in the pilot project cover mothers and help them to understand the programs, provide health information which has a significant impact of the mobile phone on mortality reduction. Results of these projects show a significant reduction in the maternal mortality and child mortality in the districts of Uttar Pradesh, Bihar, and Jharkhand.

Kathleen Sebelius, the US Secretary of Health and Human Services described mHealth as "the biggest technology breakthrough of our time to address our greatest national challenge," at the mHealth Summit in 2011. Further she added that, mobile technologies are "opening up new lines of communication between patients and their physicians"(Dolan, December 2011).She asserted that mHealth is a "natural extension" of adoption of electronic health records to solve problem of accessibility and connectivity of health information." Moreover, these services are bringing health information from computers to pockets/hands and "the advantage of mobile health is that it is always with us"(Dolan, December 2011).

Many researchers offered significant insight about how mHealth services and applications are used by the users for receiving health benefits globally ((GHL, 2013);(Dey, 2016);(Arwa Fahad Albabtain, 2014);(Caroline Free, 2013);(UNICEF, 2013);(Lakshmi, 2012)(Fulton, 2011)).

According to GSMA mHealth tracker, there are nearly 1,000 mHealth interventions worldwide, mainly in developing countries (GHL, 2013). The US Food and Drug Administration (FDA) estimated that 500 million smartphone users worldwide will use a health care app by 2015 and these apps will "allow physicians to diagnose patients with potentially

life-threatening conditions outside of traditional health care settings and help individuals manage their health and wellness and gain access to useful information whenever and wherever they need it"(Mitka, 2013).For the significance of ISF, the study of Günther and Fink ((Isabel Günther and Fink, April 2010) confirms that improvingsanitation facilities has a reasonable impact on health of under-five age children.

Conclusion

This paper concludes that mobile phone has a positive impact on healthcare deliveries as it provides easy access to health information especially in remote and rural areas of India. The statistical results of the regression model suggest that mHealth helps to reduce maternal mortality rate and contribute to achieve unfinished targets of MDGs and health goals of SDGs. In addition, statistically significant results are confirms by the various pilot studies implemented by the government of India in the maternal and child healthcare. Outcomes of these studies show a significant reduction in child and maternal mortality in the states of India.

There is a need to tap the potential market of mHealth services for healthcare deliveries in India to make affordable access of medical services. Government should take bold initiatives to implement these services at reasonable rates and improve infrastructure facilities to facilitate mobile services in each and every corner of India.

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Appendix

Appendix 1. Data on Mortality and Other Health Indicators of India

Year	MMR	IMR	NMR	U5MR	MU	IU	PE	ISF	TE	FLR	FLF
1997	0.434	7.31	4.9	10.19	0.09	0.07	1.07	22.7	4.25	47.84	28.12
1998	0.414	7.09	4.78	9.83	0.12	0.14	1.10	23.7	4.30	47.84	28.02
1999	0.395	6.86	4.65	9.48	0.18	0.27	1.13	24.6	4.03	47.84	27.91
2000	0.374	6.64	4.51	9.12	0.34	0.53	1.11	25.6	4.26	47.84	27.81
2001	0.354	6.42	4.37	8.77	0.62	0.66	1.08	26.6	4.50	47.84	28.14
2002	0.335	6.2	4.23	8.43	1.21	1.54	1.03	27.6	4.40	47.84	28.47
2003	0.316	5.99	4.09	8.1	3.08	1.69	0.98	28.6	4.30	47.84	28.80
2004	0.298	5.78	3.95	7.77	4.70	1.98	1.02	29.6	4.22	47.84	29.13
2005	0.28	5.58	3.83	7.46	8.00	2.39	1.13	30.6	4.28	47.84	29.45
2006	0.265	5.39	3.71	7.15	14.52	2.81	1.11	31.6	4.25	50.82	28.58
2007	0.25	5.19	3.6	6.85	20.16	3.95	1.10	32.6	4.23	50.82	27.70
2008	0.237	5	3.49	6.56	29.53	4.38	1.16	33.6	4.34	50.82	26.82
2009	0.225	4.82	3.38	6.27	44.12	5.12	1.22	34.6	4.38	50.82	25.94
2010	0.215	4.63	3.27	5.99	62.39	7.50	1.16	35.5	4.28	50.82	25.06
2011	0.206	4.44	3.16	5.72	73.20	10.07	1.18	36.5	4.33	59.28	24.58
2012	0.197	4.26	3.06	5.45	69.92	12.58	1.18	37.5	4.39	59.28	24.12
2013	0.189	4.09	2.95	5.21	70.78	15.10	1.29	38.5	4.53	59.28	24.15
2014	0.181	3.93	2.86	4.98	74.48	18.00	1.41	39.5	4.69	59.28	24.12

Source: World Development Indicators and UN Data

Notes and References

1   http://www.un.org/sustainabledevelopment/health/

2   http://www.who.int/gho/publications/world_health_statistics/2016/en/

3   According to the (WHO, Health promotion glossary. WHO/HPR/HEP/98.1, 1998), sustainable development refers to the use of resources, direction of investments, the orientation of technological development, and institutional development in ways which ensure that the current development and use of resources do not compromise the health and well-being of future generations.

4   http://apps.who.int/iris/bitstream/10665/249536/6/9789290225218-Eng.pdf

5   **Target 3.8:** Achieve universal health coverage, including financial risk protection, access to quality essential health-care services, medicines and vaccines for all

6   http://www.searo.who.int/india/topics/sustainable-development-goals/SDG_health/en/

7   Ensure healthy lives and promote well-being for all at all ages

8   http://apps.who.int/iris/bitstream/10665/249536/6/9789290225218-Eng.pdf

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To Analyse the Impact of MOOC's on Education & Employability

Karan Dhawan

Abstract

***Introduction**-Education is the building block of every society. As higher inculcation is expanding, it is becoming pellucid that the current academic system of India must change. Massive Open Online Courses stands by its name as it's one of the massive step ,ever taken in the field of digital education through digital means, where in the learner has the access to concepts and coursework in specific areas.*

***Objectives**-To analyse the impact of MOOCs on education & employability.*

***Research Methodology**-The study was divided into two phases:*

First phase was inclined towards collecting responses from students while the second phase focused upon employer's perception towards MOOCs.Two separate questionnaires were developed from inferences obtained through review of literature & from exploratory interviews. Researchers self-designed questionnaires consistency of few demographic details & specific question on perception towards MOOCs.A pilot study was conducted with small sample size of 20 respondents to clarify the overall structure of the questionnaire. All the items of questionnaire were retained for further analysis.

***Limitations**-The research has following limitations*

- *Time factor–The research was done in a short span of time. Therefore, the framework & sample size were selected as per the convenience. So, as to finish the work within the given frame.*

- *Biasness–The information given by the respondents might be biased some of them might not be interested to give correct information.*

- *Lack of knowledge – A large number of sample wasrejected, due to unawareness about MOOCs.*

***Practical Implication**-Current study can help the Policy makers and students in following ways*

- *Policy Makers – It may help the policy makers to find the gap between the MOOCs & the actual requirement of the industry.*

- *Students – further to this, student might also get enlighten about benefits of undergoing a MOOC & may encourage to search for a better option for professional development.*

***Findings** –It has been founded that students have a positive outlook towards MOOCs in terms of employability but after surveying the several employers, it has been encountered that the candidates who have done MOOCs does not take an edge at the time of employment.*

Introduction

"Education is The Most Powerful Weapon Which You Can Use to Change The World."

Nelson Mandela

Education is the building block of every society. As higher inculcation expanding, it is becoming pellucid that the current academic system of India must change. However, it is arduous to transmute the education system.According to Laurillard (2014), the pressure that are coercing academic system to transmute are reduced cost, more preponderant scale and scope of operation, and for innovation through technology.The emergence of internet and other web technologies has spawned incipient type of education environment, and has significantly more training and education options available from just a decade ago. Scholastic Institutions from colleges to scholastic resource engenderers have embraced the concept of distance inculcation as an expedient of incrementing the reach of the course, even beyond the concrete geographical location (Kolowich, 2013).

Massive Open Online Courses stands by its name as it's one of the massive step ,ever taken in the field of digital education through digital means, where in the learner has the access to concepts and coursework in specific areas.

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Stating, MOOCs have taken India by a massive wave would not be incorrect. A country with population over 1.21 billion people, India is not a stranger to online education and its magical potential, that can make wonders in field of education. Trailing after the United States, India currently has the 2nd highest numbers of enrollments across all major MOOCs platforms and it can be only expectedit to grow exponentially in future. In India, IITs, IIMs and several top notch private universities offer MOOC's utilizing Coursera, edX, NPTEL etc. A huge amount of fee is charged by portals like coursera&edX whereas portals like NPTELare an inexpensive portal that keeps their major focus towards attracting students in masses. It is believed that no one on this planet does anything without intention of getting benefited so as the people who are undertaking MOOC's.
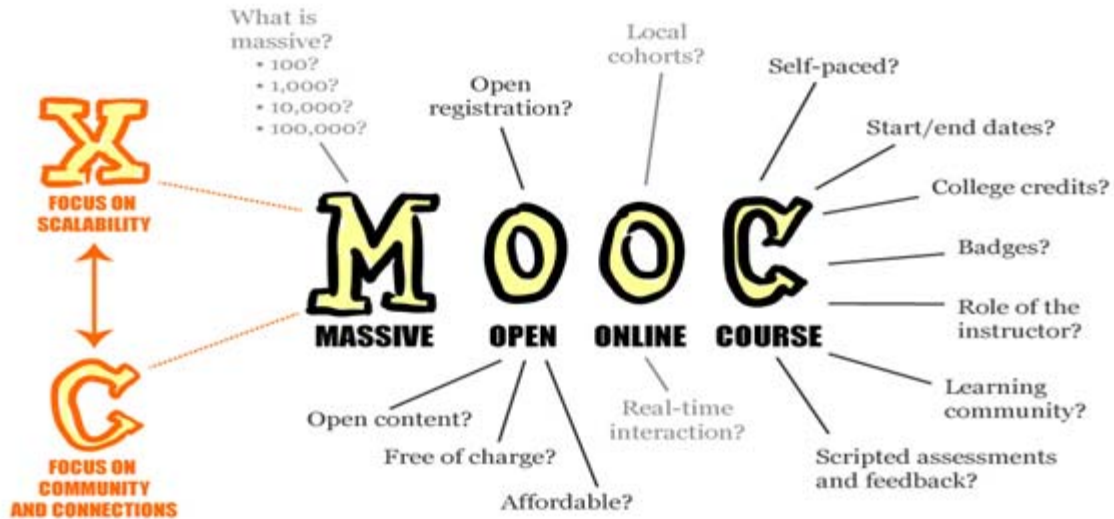
(wikipedia)

Objectives

- **To analyse the impact of MOOCs on education & employability** – The study focuses on impact of MOOC's on education:

- Is MOOC's reallyhelpful in improving either knowledge or skills or both.

- The study even peals that, does MOOC's helps an individual in getting a job or gives any other benefit to the learner at the time of employment.

Review of Literature

A number of studies havebeen done in the past few years , all over the universe on MOOCs.The eleventh annual report on the monitoring of online education in the United States by Allen & Seaman explored the nature and scope of online education. The study showed that the proportion of higher education institutions currently having a MOOC increased by 5.0% from 2.6% in the last year. Most institutions reported that they were not yet sure about MOOCs, while about 30% said they had MOOC plans. About 23% of academic leaders believe that MOOCs are a sustainable way to offer online courses. University of Pennsylvania conducted a MOOC survey among people working in public and private, non-profit and for-profit schools and universities in the United States. UU. All students in higher education management at the University of Pennsylvania participated in the survey. The results showed that half of the heads of institutions that offer MOOC talked a lot about the MOOC, compared to 9% of the executives of institutions that do not offer the MOOC. Most respondents did not offer MOOC institutions reported that their president had not taken any initiative on the MOOC (77%). He noted that the recent launch of the MOOC, its unique characteristics, the advantages of MOOC in higher education, strength and weakness has analyzed the potential link between academic libraries and MOOC to review literature and personal observations. The analysis revealed that MOOCs have the potential and ability to produce global learning partnerships through which students and universities will benefit. At the same time, it poses many challenges and opportunities for academic institutions and libraries. Mooc (MOOC) on how technology has changed over the years distance learning and how relevant courses and these courses can be useful for distance students. Studies related to MOOCs have been reviewed in India and around the world.

It also provides details of the various MOOC platforms, such as The Open University, Iversity, ALISON, Open Learning, Coursera, Udacity, EdX and EduKart, available free of charge to students. It also provides MOOC availability in India and several institutions and associated companies across the country that provide MOOC courses to academic distitutions. The limitations of MOOCs and their future have also been discussed.

The paper concludes that MOOCs and online education have great potential that would help accelerate and ensure social cohesion and sustainable growth. With a small effort by the Indian government, online education can successfully reach all individuals.

Research Methodology

The study was divided into two phases

- First phase was inclined towards collecting responses from students studying in various institutions, colleges & universities. The major student sample was collected from students of Delhi university, Guru gobindsingh Indraprastha university, Deakin University (MEL),Thompson River University (BC) etc.

- Second phase focused upon employer's perception towards MOOCs .Employer's data was collected from organisations likeAxis Bank, SBI, Genpact, Accenture, Ray white Real estate (Aus) ,SAP etc.

Two separate questionnaires were developed from inferences obtained through review of literature & from exploratory interviews. Researchers self-designed questionnaires consistency of few demographic details & specific question on perception towards MOOCs. A pilot study was conducted with small sample size of 20 respondents to clarify the overall structure of the questionnaire. All the items of questionnaire were retained for further analysis.Reviews of fewacademicians who deliver MOOCs lectures were even taken into an account while making questionnaire.

Limitations

The research has following limitations

- Time factor –The research was done in a short span of time. Therefore, the framework & sample size were selected as per the convenience. So, as to finish the work within the given frame.A desirable research needs a lot of time. It takes a couple of weeks, months & sometimes even years for a perfect research. Whenever a research is carried on to solve or eliminate the problem, the final output is available after a considerable time. When the output is made available, circumstances may effect the situations to change thoroughly or even the major motive for which the study was done ,might get solve automatically. Decision-maker demands the data in time,so as to make effective decision . But, keeping in mind the practical aspects it becomes impossible. Sometimes, essential factors that mostly gets neglected like time, money, and efforts contribute nothing.

- Biasness – The data gathered by respondents might be biased, few of them might not take interest in providing the correct information. As per few facts,it has been proved that wherever humans are tangled,getting a bias-free response or result is a tough task to achieve. Effect ofprejudice, needs,values, attitudes and remaining socio-cultural factors hit the objectivity of research study. Subjectivity usually lead to create hussle & chaos.

- Lack of knowledge – A large number of sample was rejected, due to lack of knowledge or less awareness about MOOCs.People with low level of education attainmentwere likely to tick the response of "lack of knowledge".

Practical Implication

The study can help the Policy makers and students in following ways :

- Policy Makers – It may help the policy makers to find the gap between the MOOCs & the actual requirement of the employers ruling the industry.

- Students – Student might also get enlighten about benefits of undergoing a MOOC & may encourage to search for a better option for professional& personaldevelopment.MOOCs even deals with enhancing personal skills & soft skills by providing courses like personality development & communication skills (Coursera) ,developing soft skills (NPTEL) etc.

Findings

It Has Been Found That

- Providing support on time and assessment ofstudents is a challenging job as far as MOOCs are concerned. Lecturers, Professors or academicians might be able to design and deliver online lectures but at the same time, it becomes next to impossible for them to evaluate or connect to such a large number of students, who have enrolled for the course. Thus, MOOCs becomes a token of quantity education instead of quality education & quantity education is not enough to grasp employer's attention in this highly competitive world.

- Employers from few organisations like Genpact& SAP concluded that MOOCs does not give any edge to a fresher at the time of interview, though it makes it more difficult for the person to get the job as usually interviewers may even raise questions as per subject of MOOCs.Though,20% of the employers even claimed that few MOOCs helps an individual after one gets the job, if the nature of the job is same as the subject of MOOCs.

- 42% employers responded that regular certificate courses, degree courses or diplomas are better than MOOCs as it restricts the students to maintain certain percentage of attendance in exchange of the certificate, degree or diploma and they believe that it is only the best way to get quality knowledge.

- More than half of the surveyed population claimed that skill are earned with personal & professional experiences though knowledge is something that is learned. So, it becomes clear that MOOCs does not help in attaining any skills, though it even fails to provide quality education.

- The impact of MOOCs is same in all the national & international markets.

- A large number of students claimed that MOOCs is just an easy way for the developers to mint money as it does not help in getting employment. On the other hand the knowledge the students get from MOOCs lectures can even be fetched by various search engines ,whereas a filthy amount is even charged by softwares like Coursera,edx etc. for few MOOCs.

- 72% of students who are currently persuing their higher education& are unawareabout requirements of the industry believes that investing in MOOCs is worth& may help in future.

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A Study About The Level Of Mooc Programmes Awareness In Undergraduate Students of Management Stream

Mr. Rahul Gupta* & Ayush sakhuja**

Abstract

A Massive Open Online Courses (Mooc) Is An Online Course Aimed At Unlimited Participation And Open Access Via The Web. In Other Words It Is A Free Web Based Distance Learning Program That Is Designed For The Participation Of Large Numbers Of Geographically Dispersed Student. In Addition To Traditional Course Materials Such As Filmed Lectures, Readings And Problem Sets, Many Moocs Provide Interactive Users Forum To Support Community Interactions Among Students, Professors. That Can Be Accessed By Anyone, Anywhere As Long As They Have Internet Connections ,Are Open To Everyone Without Entry Qualifications, And Offer A Full/Complete Course Experience For Free. Moocs And Technology Education Are Having An Enormous Impact On Education. Academic Institutions Are Increasingly Thinking , Debating And Dreaming About The Role Of Moocs –And Digital Education More Broadly-In Defining Future Models Of Education , They Have Focused Attention On The Teaching And Learning Process , Generates More Collaborations And Experimentations Among Academics Institutions. The Data That They Are Collecting Has An Immense Value To Understand The Different Challenges In Order To Transform Traditional Educational Models .All These Moocs Were Created At Top Tier Schools Like Harvard ,Mit,And Stanford With Their Own Education Models And Policies .Nevertheless,The Growth Of The Mooc Has The Potential To Address The Problem Of Meeting Increasing Demand For Higher Education ,Particularly In Developing Countries Where It Is Almost Impossible To Build Enough Traditional Institutions To Cope With The Number Of Prospective Students. So we can say that mooc is becoming an integral part of our education system for this we have planned to do a research on this topic. We will frame a questionnaire and these questionnaire will be filled by students, The purpose of the particular research will be to find out awareness level among students and what are the gap areas on which it can be worked out. It will be rely beneficial for the society, education institutes and all concerned parties.

Introduction

The Massive Open Online Course (Mooc) Movement Is Playing A Pivotal Role In Transforming the Higher Education.The present paper describes the claims and counter-claims which addresses the opportunities and threats of the MOOC movement, as perceived by a random sample of student who have enroll themselves in Open Distance Learning courses.The unique characteristics of MOOCs- including free registration, open access to learning (regardless of prior qualifications), a large and diverse learner body who not only have different backgrounds but also wide ranging motivations for enrolling in a course.In this research, a survey has been used to collect and analyze the data obtained from sixty respondents. A questionnaire is developed using google forms and used by have been administered among respondents. A total of 60 have been selected randomly as sample of the study. The sample responded to the statements given and chose their answers based on their perceptions. The survey has been distributed through email address of the respondents. The various sections of the questionnaire included: (a) familiarity with mooc, (b) learning Experience with MOOC, (c) Opportunities for students to grow with online free courses, (d) impact of mooc on on education'.MOOC is an online course that engages students in the learning process, offers a way for students to connect and collaborate, and provides a platform where course materials are shared free of cost to participants. Initial development of MOOCs focused on incorporating high levels of learner control, real-time, sessions with the facilitator and other speakers, providing a digital control that summarized course activities such as participant blogs posts, online discussion, external resourcess. Further, the early MOOCs were designed to be tuition-free, openly accessible courses that did not generally incorporate or grading. Unlike in traditional Higher Education courses where learner expectations are largely standardised (successful completion of a course or degree programme is a marker of success), the diversity of learners in a results in a range of motivations for participation.

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Research Questions

1. How would you rate your familiarity with Moocs ?
2. Moocs are an innovation that will have a positive impact on education?
3. Use of open educational resources by respondent?
4. How many Moocs have respondent enrolled themselves as a learner?
5. Open education is a positive trend in question?

Research Design

Our research methodology and design are as follows

We have followed descriptive design for doing this research. Our sample size is 60. Technique used for sampling is judgmental sampling. Sampling frame is data of students from our whap groups.

Data Analysis Process

The data collected from respondents have been gathered and analyzed using the google docs.The data includes collection of data and interpreting the results .The analysis is done through using statistical tools to analyze the research findings.

Inter Pretation

Now after receiving responses from 60 respondents now their results are analyzed using tools. A questionnaire consist of 6 questions is answered by 60 people who were contacted randomly using their email address. Below responses are responses are analyzed and interpreted using statistical tools.
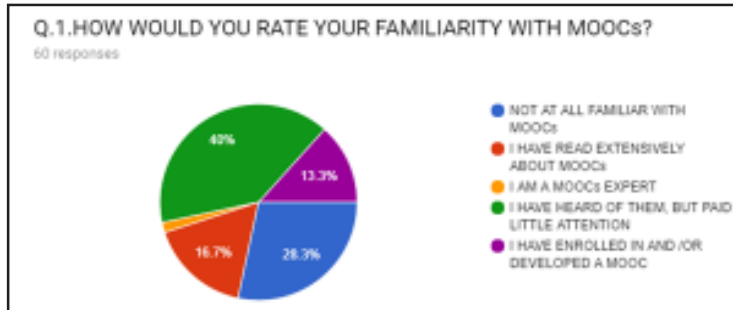
Intre Pretationquestion 1 Responses

From that particular question we can analyse that only 13.3% students have enrolled in Mooc. On the other hand we can see that 85 % students have heard about these Mooc programmes but they don't pay any attention to that programme. Awareness level in the students are very less and If they heard it form somewhere however they don't pay attention to it . It is clear that They don't know the merits and demerits of the that why they ignored it.
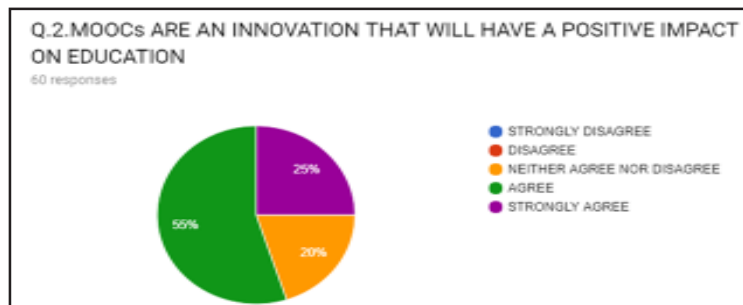
Intre Pretationquestion 2 Responses

Above question represents that 55% students believe that Mooc programmes have a positive impact on our education system. The thing that is worth notice over here is that no one selected disagree and strongly disagree out of that 60 respondent. So with this we can interpret that students are partially aware about the Mooc programmes , They have heard about these programmes and thay are some what understand about the concept that what is Mooc programmes but some part is missing as far as aware ness is concerned.

Q.3. USE OF OPEN EDUCATIONAL RESOURCES BY RESPONDENT?
60 responses

- NEVER
- RARELY
- OCCASIONALLY
- FREQUENTLY

25%
35%
11.7%
28.3%
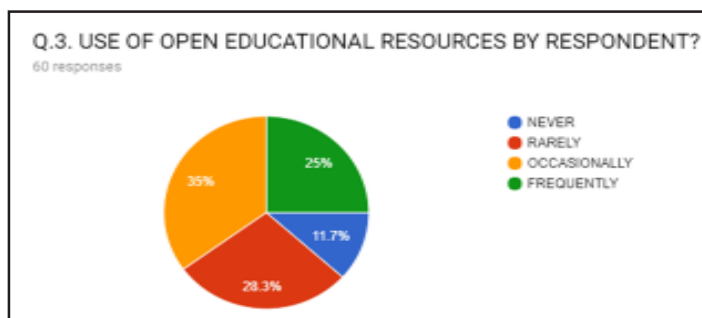
Intre Pretationquestion 3 Responses

Above question represents that Only 25% of the students have used this Mooc platform for their betterment. So it is clear that the efforts put in by different education institutions are bringing some changes, We can see that many of the respondent having knowledge of mooc and they are willing to enroll in any of the Mooc and problem is on the awareness and to know about the benefits of Mooc are with. So situation is becoming more clear.

Q.4.HOW MANY MOOCs HAVE YOU ENROLLED IN AS A LEARNER?
60 responses

- NONE
- 1-2
- 3-4
- 5-6
- 7 OR MORE

25%
28.3%
40%
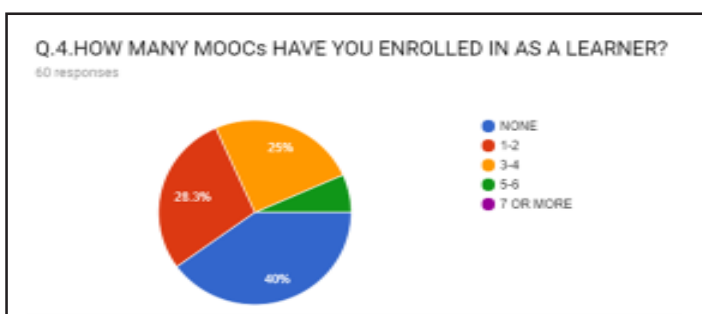
Intre Pretationquestion 4 Responses

Above question represents that 40% students have not enrolled in any of the Mooc courses, On the other hand many students are taking interest in these Mooc programmes. Mooc are gaining the awareness and these Moocs are becoming the requirement of the current day. Students who can't spare some time from their hactic schedule, The Mooc programmes has facilited a lot to them. It is really a need of the hour, which will bring changes in our education system.

Q.5.OPEN EDUCATION IS A POSITIVE TREND IN EDUCATION?
60 responses

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

23.3%
53.3%
18.3%
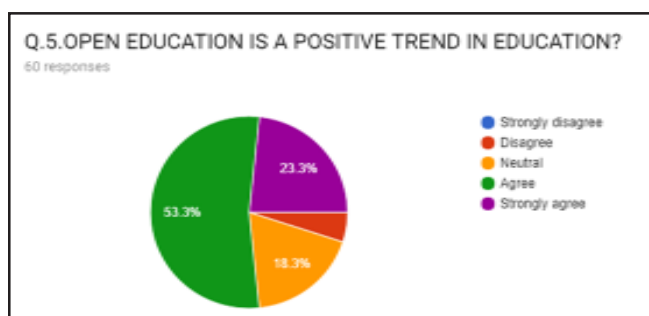
Intre Pretationquestion 5 Responses

Above question represents that almost all respondent agree on the thing that open education is a positive trend in education, with which there will be a great transformation in our education system. Each and every willing student will be able to get the right platform from where he / she will get the required knowledge. It will not be a matter whether they are working or not working they can do it by their home with their own choices and as per there convenience from office or home.

Conclusion

As per the analysis done above 40% students have not enrolled in any of the Mooc courses, On the other hand many students are taking interest in these Mooc programmes. Mooc are gaining the awareness and these Moocs are becoming the requirement of the current day. Students who can't spare some time from their hactic schedule for them Mooc programmes has facilited a lot to them. It is really a need of the hour, which will bring changes in our education system. So with this we can interpret that students are partially aware about the Mooc programmes , They have heard about these programmes and they are some what understand about the concept that what is Mooc programmes but some part is

missing as far as aware ness is concerned. So it is clear that the efforts put in by different education institutions are bringing some changes, We can see that many of the respondent having knowledge of mooc and they are willing to enroll in any of the Mooc and problem is on the awareness and to know about the benefits of Mooc are with. So situation is becoming more clear.

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Payment Gateway Security in Digital India: A Study of Security Measures Taken By Various Payment Gateways and Mobile Wallets in India

Tripti Tiwari* & Tannya Agarwal**

Abstract

With the emergence of e-commerce, globally accepted payment practices are emerging and old practices requiring carrying cash are becoming obsolete. In such digitally inclined transactional era, it seems important to understand the different available payment options specially those which emerged after demonetization. The importance to understand and evaluate all the options has become imperative as Indian consumer is becoming more demanding, especially due to the emergence of middle class as high-spenders who has a tendency to remain cost conscious, evaluating every rupee spent on shopping. Therefore, this review paper is written with a focus on studying the working of various payment gateways with security as a major concern in each.

Keywords: Payment Gateway, Mobile Wallets, Digital India, Security Concern in Online Payments.

Introduction

E-commerce has transformed the way in which businesses are carried out. It is mainly due to the fact that online services offer openness, speed, anonymity, digitization, and global accessibility.

The widespread of technology has our nation running in this blind race without paying much attention to the security issues that are arising in the background — we need to take our blinkers off. The current scenario that is being created by digitalizing payment methods has hidden flaws because even when organizations use cryptography, they are using outdated methods and letting hackers in hence jeopardizing the system.

Payment gateways use asynchronous mechanisms to redirect the users; that is, the user enters credentials on a page and gets redirected to the next page and so on. To ensure that a gateway is safe, the MACs/hashes that are sent for redirection must be completely safe and tamper-proof. If the hashes are tampered with, there can be unauthorized access to a user's bank details.

Objective of The Study

- This paper is written to study the flaws behind the various payment methods that are supporting a huge traffic of users every day.
- To study the security measures taken by the leading payment gateways and mobile wallets in India, like PayTM, Instamojo and PayUMoney to name a few.
- This review-based paper intends to compare the security measures taken by different corporations.

The required information for study has been collected through various papers and articles available for access through the official websites of service providers else they can easily be obtained via email queries. By the end of this paper, we can perceive how these payment methods actually work and whether it is safe to trust them with our daily transactions. We do not want to use technology which has low safety standards and turns out to be a menace for the users.

Existing Scenario

All Indians were pushed towards adopting digital means of payment when demonetization was announced [6]. The initiation of the Digital India campaign noted an upsurge in the number of people who use online payment gateways and mobile wallets. This was undoubtedly, a step towards development but the real question that came to every old and new user was, is it really safe? Post demonetization, large number of people are using these new modes of payment, ranging from vegetable sellers to high-street stores. Payment gateways in India are witnessing high growth in recent months because of the demonetization of high-value currency notes of Rs 500 and Rs.1000. Everyone wants some assurance from the technology that they are using but they are not aware of the parameters undertaken by these gateways to ensure security and confidentiality.

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Quite a few banks and service providers are offering Payment Gateway services, albeit in a restricted fashion. Most of them support only credit card transactions and do not take into account other evolving payment instruments including Electronic Funds Transfer (EFT), E-cheques, etc. If the full potential of e-commerce in India is to be exploited, then the customers should to be provided with a complete range of payment options [7] some of which are provided by the leading Payment Gateways in India like:

- Zaakpay
- Juno Payments
- Instamojo
- Transecute Pvt. Ltd.
- PaySeal (ICICI)
- Eliteral Payment Gateway

A payment gateway is an e-commerce application that authorizes payments for e-businesses, online retailers, bricks and clicks, or traditional brick and mortar businesses. It is an online service provided by software companies in collaboration with financial service providers like Visa and Master Card that enables a website to accept electronic payments. In India payment gateways are offered by private banks like ICICI Bank, HDFC Bank and Yes Bank, along with international players like Paypal. A payment gateway comprises of a secured encrypted connection created between your web portal and the commercial bank. It enables a business to get money into its chosen bank account through different channels like credit card, debit card, internet banking, prepaid cards and mobile wallets. It is the virtual equivalent of a physical point of sale terminal located in most retail outlets. Payment gateways encrypt sensitive information, such as credit card numbers, to ensure that information passes securely between the customer and the merchant.

It is a critical infrastructural component to ensure that all payments are carried out without any glitches and in complete security. It is the access point to a banking network; therefore, all transactions must pass through a payment gateway in order to be processed. Thus, we can say that a payment gateway acts as a bridge between a merchant website and financial institutions that process the transaction. It authenticates and routes payment details in an extremely secure environment between various parties and related banks.

A payment gateway can be made more secure when there are layers of security, like OTP generation along with username and password identification. Even though this concept is not new in our country, it is still being offered in a restricted manner. If we undertake using payment gateways, the payment processes that take a long time would only take merely some minutes. This is a highly time saving method and it is available 24x7x365.

Understanding the Concept

The Indian economy is moving towards being digitized as people are getting accustomed with making online payments. The concept of a payment gateway is being more widely accepted. A payment gateway is a portal to making online payments as it acts as a bridge between a merchant website and financial institutions. It authenticates and routes the payments that are to take place. If we take a step further, then we can talk about the role of the government in facilitating payments through these gateways. The benefits for the common man include simple comfort like easy reach, reduction in the transaction time, maximum security. [4] It is mainly due to the fact that online services offer openness, speed, anonymity, digitization, and global accessibility.

However, when we address this at a macro level then there are some issues that require intervention, such as lack of support for all kinds of currencies, lack of standards, legal hassles, regulatory conflicts etc. If we want to compete globally with the rapid growth that is being seen, then we need to undertake and embrace the technology that is soon to be the driving force in all fields of work.

In the last decade, several mobile payment protocols, based on the full connectivity scenario have been proposed to improve the security of these kinds of payment systems. The payment protocol, PCMS, has five entities: Client, Merchant, Acquirer, Issuer, and Payment Gateway [5].

The security analysis shows that this method uses a temporary ID or nickname instead of revealing the real identity of the user. The confidentiality is also protected as the protocol is protected by employing symmetric cryptography. The timestamp ensures the freshness of the message and prevents replay attacks. This is based on an encryption algorithm with 128-bit key as the symmetric key algorithm, and an MD5 algorithm for hash functions which is a lightweight protocol for secure online payments in a restricted scenario, where the clients and merchants do not interact with each other.

Making a Secure Payment Gateways

As the grasp of internet is taking over the world, people are starting to prefer online payment methods over offline ones. All online payments need to be processed through payment gateways which act as access points for financial institutions. There are different levels of security for these gateways to authenticate payments. [3] The Secure Socket Layer (SSL)/

Transport Layer Security (TLS) protocol is being used for a secure connection between the client and the server. Dual verification is a method which ensures hassle-free, secure and reliable transactions.

The existing online payment technique has three steps:

- Establish Secure Communication
- The SSL Handshake Channel
- Completing the SSL handshake

Following are the types of communications in online payment gateways:

- Communication Between Customer Browser to Merchant website
- Communication Between Customer Browser to Bank Server
- Communication Between Bank Server to Merchant Server (Double Verification)

The double-verification is proposed because the first two techniques can be tampered with. This method verifies the status, amount and transaction ID at bank side for the initiated transaction. On receipt of the response from bank, the responses (First response before Double Verification and Second response after Double Verification) received are compared for validity, to check whether payment transaction was tempered with or not. If the responses do not match then the status would be "fail".

Thus, we can say that the double verification technique adds security to the already existing payment gateways.

Comparison of Various Payment Gateway

India has many payment gateways with different promises to the client. However, the clients either do not have the time to scrutinize these portals or they do not have the understanding about online security methods. Based on comparison of eight of India's top payment gateways, viz. CCAvenue, PayPal, DirecPay, EBS, ABC Payments, HDFC, ICICI PaySeal, and Transecute.[2]

The criteria under which the gateways were compared are: Security, Cost, Customer Care & Support, Dispute Resolution, Processing International Payments, Real-time and Transaction Time Support, Support for Multiple Banks, Tools and Features Offered.
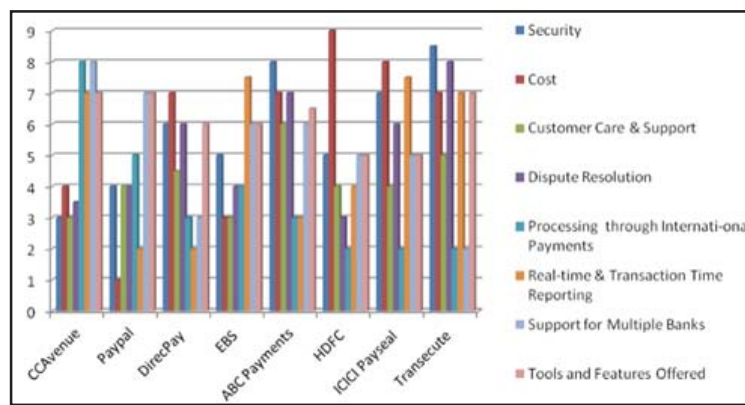
From this study, one can easily differentiate between the services provided by different payment gateways and thus, people can decide which one the gateways is better for them according to their needs.

Performance Evaluation and Analysis

Payment Gateways are a new step in the electronic business system and it is very important to ensure its security. The most widely used methods of securing online payments are SSL/TLS and SET. There are various security requirements in payment gateways, the major ones being: information confidentiality, data integrity, authentication of participants, non-repudiation and end-user implementation requirements.Thus, the new security method, Secure Electronic Payment (SEP) works through a protocol design. The main idea behind this protocol is to maintain security and efficiency against fraud without involving the third party.[1]

The working of this protocol goes through the following steps:

- Cardholder authenticates merchant and issuer bank
- Merchant authenticates payment gateway and issuer bank
- Payment gateway authenticates merchant and issuer bank
- Issuer bank authenticates cardholder using the password code.

Data integrity is ensured by using MACs based on MD5 (16 bytes) or SHA-1 (20 bytes).

The non-repudiation property is guaranteed by using the password code during the cardholder authentication request.

The protocol also meets the following end-user requirement implementations: usability, flexibility, affordability, reliability, availability, speed of transaction, and interoperability.

It is clear that the SEP protocol is a good transaction protocol for credit card payments without involving a third party but as of now, it does not support all methods of payment.

Conclusion

The Payment Gateway would be an essential component for all kinds of international e-commerce and e-governance transactions including B2C, B2B, B2G, G2C, G2G, etc.in the new digital India.The above study concludes that the user today needs a user friendly payment option which is easy to understand and use. The comparative study also helps highlights that since demonetization, in absence of cash in hand people need to trust the online transaction system which now most of the payment gateways are understanding and trying to make them as secure platform.

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Influence of Digitization on Enhancing Capacity Building: Implications for Neurodiverse and Autistic Workforce and Entrepreneurial Orientation

Parveen Khullar*

Abstract

The aim of this study is to study neurodiversity and investigate a degree to which autism influences the entrepreneurial orientation leading to capacity building. Review of literature reveals that at present, no study has found a correlation between the Autism and Entrepreneurial Orientation. The study will focus on the gap of characteristics of autistic persons which can make the neurodiverse workforce more creative. The study will also investigate the motivational and societal factors which restricts neurodiverse workforce for mainstream employment in Indian Context. The study is intended to measure characteristics of neurodiverse workforce especially autistic persons, which influence entrepreneurial orientation (EO) for better employability. Two case studies of autistic persons will be developed based on the issues pertaining to learning abilities. The study has several policy, managerial implications and future research in this domain. This study will contribute in the country's initiative of "Inclusive India" launched in June, 2017.

Keywords: Digitization, Capacity Building, Autistic Workforce, Entrepreneurial Orientation

Introduction

"Neuroticism" being a narrow topic in itself, broad Guidelines received from supervisor and co supervisor to work on Topic, Synopsis, and Selection for probable Data Collection methods, Techniques, Sample size, Industry and revision of Quantitative Techniques for strong base. Further, in view of current emphasis and policy of Government of India regarding Digital India, "Start up India", "Stand Up India", "New India", "Atithi Devo Bhavo "attention is drawn towards "Entrepreneurial orientation in Hospitality Sector" and further search through on-line and reading the journals and periodicals began with an alternative keywords related to "Atithi Entrepreneurship" on the lines of Education Entrepreneurial orientation, Social Entrepreneurial orientation, especially in view of the future of Hospitality Entrepreneurial orientation: viz. Digital Concierge & Hotel services, , Rediscovering local experiences, Demand for short term rentals grows beyond Airbnb & Chasing the Airbnb Economy

At this stage emphasis is being given on entrepreneurial orientation and the study indicated that Neuro-diversity leads to innovation and solutions. The in-depth study on basic term and definition of"Neurodiversity"indicates that "neuro-divergent" individuals do indeed have a unique skill set which includes a range of strengths. It is a diversity of human brains and minds – an infinite variation in neuro-cognitive functioning within our species. Innovation and Creativity being an important factor for entrepreneurial orientation, review of literature is continued.The study of (Bowley, 2016) indicates that there is a dire need and research on the Neurodiversity at Work Place. The probable questions:What are the methods and procedures for selection, training and retaining the neurodivergent entrepreneurs?

I happened to be associated with the fraternity of Hotel industry and subordinates, peers and seniors of the PSU companies for a long time. My observations bounce my anxiety to know as to why the persons do not translate their abilities and capabilities into the productive outcome. Why don't they demonstrate their initiative in performing their duties? Why the leaders unable to get their utmost potential explored? Why don't they provide timely service to their internal and external customers? What are the obstacles for their non participation in the organizational performance?What are the limitations of Service providers affecting Customer Satisfaction? Why do the customer and service provider not receive or provide service with smile? What are the factors responsible for such a negative behavior?

Literature Review

The term 'learning difference' has been increasingly used to provide a more socially acceptable way of referring to a range of what were previously called learning 'difficulties' (BDA, 2006). The term 'neurodiversity' encapsulates the more positive and empowering notion of 'difference' as opposed to 'deficit' and is also consistent with current conceptions of learning difficulties as being highly co-occurring and overlapping (Deponio, 2004; Kaplan, Dewey, Crawford, & WilsonKaplan, 2001). Neurodiversity is both a concept and a civil rights movement, developed by online groups of

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individuals with autism in the late 1990s (Harmon, 2004). In its broadest sense the concept of neurodiversity defines atypical neurological development as a normal human difference that should be tolerated and respected in the same way as other human differences. In an Higher Education (HE) context, neurodiversity has evolved to include many types of LDs, including ADHD and Asperger's Syndrome as well as dyslexia, dyspraxia and dyscalculia (Danda, 2008).

Neurodiversityis a relatively recent term that developed from the advocacy movement on behalf of individuals with autism spectrum disorders (ASD; Cascio, 2012; Kapp, Gillespie-Lunch, Sherman, & Hutman, 2012). Other groups of individuals with neurological based disabilities also embraced and viewed the term "Neurodiversity" with a spark of potential and skill. It is suggested that these disabilities are a natural variation in brain differences and that the workplace should adapt to them. (Summer & Brown, 2015). Certain Common neurological based Learning Difficulties such as Attention, Organisation, working memory, Time management, Listening skills, Sensory perception, Speed of processing differs from individual to individual. The profile of individuals with Special Learning Difficulties is affected by a range of factors, including the cluster of learning differences they experience, their ability, background and opportunities. Therefore, an individual should be supported in a way that not only meets the needs of their particular weaknesses, but also develops their strengths and abilities. (Teaching for Neurodiversity) (British Dyslexia Association, 2017). It has been recognized that the teams, organizations and society are benefitted with the inclusion of neurodivergent brigade in the business, provided the differences are embraced and supported in true sense **(Beethan & Okhai, 2017).**

Digitization and Neuro-Diversity

Individuals with intellectual disabilities (ID) often experience difficulty concentrating, poor communication skills, health problems, and overall lack of motivation (Rose, Saunders, Hensel, & Kroese, 2005). In addition, deficits in time management skills, self-regulation, organizational skills, and the ability toexecute tasks can limit these individuals' success in gaining and maintaining employment (Davies et al., 2002; Green, Hughes, & Ryan, 2011; Smith, Polloway, Smith, & Patton, 2007).Given these skill deficits, individuals with (ID)**often require continued assistance, training**, and frequent prompts to increase job skills and employability (Sauer, Parks, & Heyn, 2010). Technology is changing the lives of people every day. New technologies are helpful for individuals with autism in improving communication, assisting in the development of social skills and enhancing the ability to learn (Autism Speaks). Previous reviews have shown assistive technology (AT) has the potential to help individuals with ID overcome many limitations and provide the necessary accommodations to improve the completion of work-related skills (Sauer et al., 2010). Further, this AT support method has shown tremendous promise for increasing independent task performance and improving the efficacy of task completion skills for individuals with ID. (Davies, Stock, & Wehmeyer, 2003; Gilson, Carter, & Biggs, 2017; Wehmeyer et al., 2006; Morash-Macneil1, Johnson & Ryan, 2017). The positive attributes associated with the Individuals with disabilities, supported with AT have the potential in capacity building leading to entrepreneurial orientation.

Further, Burke et.al (2013)'s study involved a preliminary job-site testing of computer software, i.e., *VideoTote*, delivered via a computer tablet and designed to provide users with video modeling and prompting for use by young adults with an autism spectrum disorder (ASD) across a range of employment settings. Results suggested that video modeling and prompting were effective in helping individuals with autism complete a multi-step shipping task Now-a-days, "Digital India" is being considered as a catalyst for Indian economy. Hence, studies on tapping the potential of this hidden talent contributes in promoting the vision envisaged by the Government of India.

Methodology

The on line search of about 96 articles from journals, periodicals, magazines in addition to the earlier 41 related articles, it is observed that in India there is relatively a very low engagement of neurodiverse entrepreneurs in employment. Thisentrepreneur is not being projected as a Potential Entrepreneur. The contribution towards alignment of Neurodiverse Entrepreneurs to employment, Self-employment, social entrepreneurial orientation is the need of an hour. We are going through the potential research topics for Neurodiversity, Autism, Self Employment, Disabilities Disorder, Special Learning Difficulties, Assistive Technology, Support System.

The variable Negativity is further replaced byLow Morale, Defeatist, Dismissiveness, Drudgery, Intellectual Corruption and online search is made with the keywords: Neuroticism, employee performance, Hotel performance, Service Climate,Customer satisfaction, organizational performance for obtaining relevant articles towards the journey of a qualitative research topic. The literature review is examined from the perspectives of flow, customer satisfaction, service climate, personality traits and organizational performance and its impact at work place. Out of the 41 full text articles, only about 28 found to be potentially useful, and from that only about 10 were found to be actually useful.

The objective of the study was to find outthe influence of autism and neurodiversity on entrepreneurial orientation, thereby raise awareness about entrepreneurs with disabilities/neurodiverse entrepreneurs/autistic people's 'work capabilities, qualifications and value to the economy of the country; andenhance effective and faire implementation of public and private initiatives that promote entrepreneurial opportunities for individuals with disabilities./neurodiverse entrepreneurs.

Proposed Propositions

1. Autism influencesentrepreneurial orientation significantly.
2. Autism influences Innovation and Creativity significantly.
3. Autism influences Social Entrepreneurial orientation significantly.
4. Entrepreneurial orientation can empower and become a self employment option for people with disabilities.

The variables identified are given in table 1.

Table 1:The Variables Identified and For Mation of Constructs

Internal Variables	External Variables	Employee/Student/Entrepreneur's Characteristics
Attitude	Organizational Culture	No. of Ventures/Products/Services created
Leadership	Top Management Support	New Benefits
Expectations	Family Support	Modification of Products
Personality Traits	Societal Support	Innovation
Motivation	Organizational Flexibility	Sustainability
Socialization	Empowerment/Autonomy/ Work Discretion	
Emotional Quotient	Quality of Life	
Spiritual Quotient	Work Life Balance	
Entrepreneur Orientation	Rewards & Incentives	
Behaviour	Compensation	
Creativity	Career Development	
Innovation		
Self Sufficient		
Job Satisfaction		
Commitment		

Based on The Literature Review The Above Constructs Have Been Proposed For Further Study

Conclusion

The above literature review based study shows that there is significant influence of technology on enhancing the workforce capability and capacity building. It is also very critical to understand that there is significant need of undertaking this study in future for exploring the need based training module designing capability so that the workforce can be made self employed or capable of getting employment. Technology and digitalization can be an enabler of the same. Use of information communication technology, there is a huge possibility of reorienting the neurodiverse workforce in the world.

Future researchers may take up the study further into empirical and case study. The future study may also focus on Qualitative Analysis and develop Case Study for proving or disapproving Hypothesis. There is a gap in the literature in identifying variables with reference to autistic entrepreneurial orientation/for enabling entrepreneurial orientation/self employment/social entrepreneurial orientation. The managers would be able to help their organizations by focusing on development of technology based training modules for enabling the efficiency of workforce. The areas where the corporate may work on training modules include development of attention/attention to detail, organization, working memory, time management, listening skills, sensory perception, speed of processing, pattern recognition, ability/ability to focus, background:(family background)/education/gender/race/caste/creed/environment/ethnic background, opportunities / support, special characteristics of entrepreneurial orientation, personality traits, intersectionality and diverse entrepreneurial orientation.

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Digitalisation and Status of IT Sector in India

*Karan Sabharwal**

Abstract

Per capita spending in India on IT sector is very low as compared to other countries. Initiatives by the government in India indicate a need to take some serious measures to improve the e-Governance scenario in India. Present Indian government e-governance is the major area of focus and Digital India project will be on the National e-governance Plan. The study explores the present status of IT sector and plans under Digital India programme which will automatically up-grade IT Sector in India.

Keywords –Information Technology, Digital India, Per Capita, E-Governance, Digitalisation etc.

Introduction

India is a diversified nation having multiple cultural, multi-language and multi-religion with complex socio-economic conditions. People of India vary financially, in employment status, age and education. Rural and urban India have marked difference at level of digitization; according to statistics, more than 75 per cent of the broadband connections in the country are in the top 30 cities[1].Some States are not able to adopt even one technology but others have adopted very efficiently. It is not just about people who have access and those that do not; it is not just about haves and have-nots especially those who can communicate with the rest of the world and those that cannot. Another important reason of digital divide in India is knowledge divide. Knowledge divide is directly related with digital divide. Internet use is primarily associated with a large section of the English-knowing urban population. Added to these, the growing population, insufficient funds, affordability, and delays in implementation of government policies and programmes, have been some of the challenges that have led to unequal development in the society, which is responsible for Digital Divide[5][6].

Role of IT Socio-Economic Development of any Country

IT sector play a vital role in socio-economic development of any country. Digitization offers incremental economic growth of country.Countries at the most advanced stage of digitization derive 20 percent more in economic benefits than those at the initial stage. Digitization has a proven impact on reducing unemployment, improving quality of life, and boosting citizens' access to public services. Finally, digitization allows governments to operate with greater transparency and efficiency. The contradiction in India is that the country is rightly recognized a global leader in the delivery of IT services, but it suffers from very little internal IT development in the country. IT can be the cornerstone of India's socio economic development. India has made encouraging efforts to bridge the gap by initiating a number of projects and programmes.

Present Status of IT Sector in India

India's booming IT sector has helped India gain special position in the world market. IT sector's contribution has increased from 1.2% in 1998 to 7.5% in 2012. India is emerging as the most attractive destination in IT enables services especially for business process outsourcing (BPO). The figures of IT industry are based on revenues generated which cannot be directly compared with GDP. But these figures tell us the growing importance of IT sector in India. This sector has changed Indian economy's structure from agrarian to knowledge driven economy. It has helped domestic firms to connect and integrate with the world economy. Due to easy reach and connectivity, IT has helped people living in far flung areas to connect with people across the globe. In this contemporary world, all the transactions from shopping to filing IT returns are done online and have given rise to e-governance in India. This section will discuss the growth of IT sector in India from 1980 to 2015.However the study will be divided into two phases. The first phase is pre-reform phase from 1980-1991 and second phase if post reform phase from 1991-2015. After economic reforms of 1991, stats and central government has provided many incentives to the IT sector for better growth and emergence of IT sector. The incentives given by the government include external trade liberalization, removal of import duty on IT products, setting up of STPs and EOUs, etc. Government has also made National Task Force to decide policy initiatives to strengthen IT sector in the Indian economy.

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IT Annual Growth Rate

IT industry has been improved after 1991.It has grown at a very fast rate. The growth rate has been variable throughout the period from 1991-92 to 2014-15.The graph shows highest growth rate in year 2001.However, the growth has been steady and continuous. The growth rate slowed down after 2001 which shows major changes happened in the IT sector and it shows that the industry has potential to grow further more. Further reforms and liberal policies are required to enhance the growth rate of IT sector in India. The sector is simulating and encouraging other sectors to grow by providing good quality support and information. There is a negative growth rate followed by the recession of 2008-09 which affected the growth of the industry. However, the industry recovered in the coming years till 2015. Through digital India program the industry is expected to reach a higher growth rate[2][3].
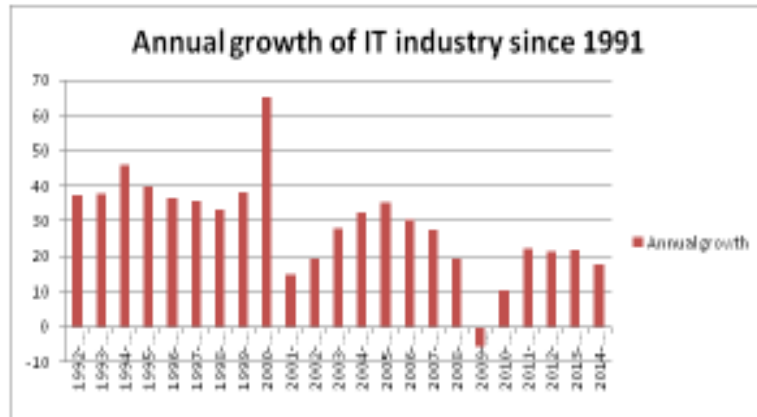
IT Total Exports

Pre-Reform Phase

IT Exports play major role in improving the balance of payment accounts and affects the exchange rate of the currency with respect to the currency of the other country. In the pre reform phase the growth has been low in all the years except 1982 where the growth was exceptionally high. The exports has been a motivator in the IT sector industry as it increases the contribution the IT sector in the export share and contributes to the growth rate of the country. The growth rate might be lower than what it should have been due to restrictions and lack of incentives in the pre reform period. The pre reform period wasn't liberalised and the incentives to grow were negligible[2][3].
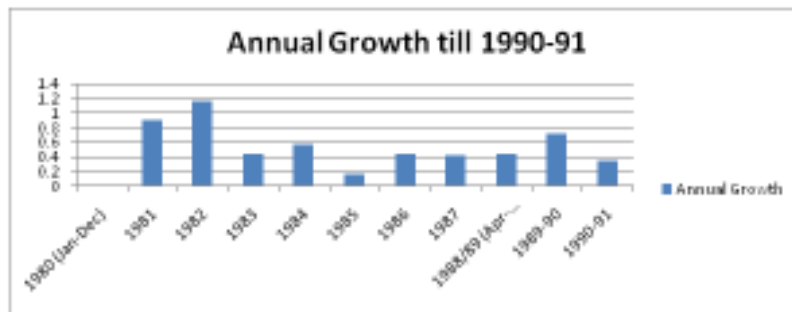
Post reform Phase

After liberalisation, privatisation and globalisation introduced in economic reforms 1991, the growth rate increased at a very high rate and it remained high for two consecutive years initially.
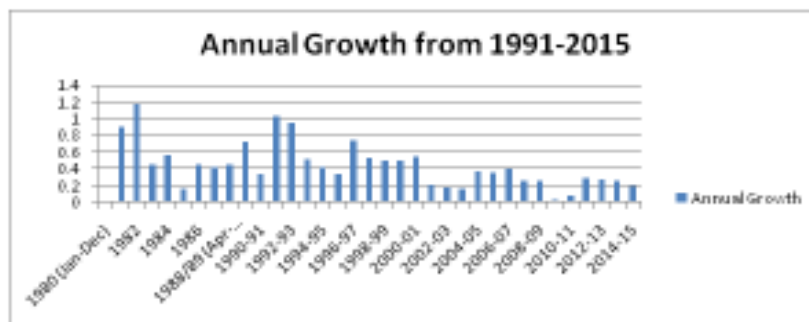
After that the growth subsidized and varied nearly equally in all the years till 2014-15. It is important to note that the growth rate in 2009-10 and 2010-11 has been low as compared to other years. This shows the impact of worldwide recession on the IT exports of India.

Digital India Programme

The Digital India programme is one of dream project that was initiated by our PM NarendraModi on 26 September 2015, with an aim of transforming the country into a digitally empowered society and knowledge economy. To make programme successful a strong determination among people, good policy–makers and political support is also required to bridge the digital divide. The country needs to improve the infrastructure of public libraries and link them with community information centres.

Digital India program will ensure that Government services are available to citizens electronically. It would also bring in public accountability through a Unique ID and e-Pramaan based on authentic government applications[4][5].

Initiativesof Government to bridge digital divide in India

Below are the projects initiated by government of Indiaunder Digital India to promote its IT sector and itsrapid digitization. Successful implementation of these projects will definitely improve socio-economic conditions of India[10].

Identified Gap	Project to bridge the Gap	Aim of Project
Restricted access to high services areas,	**BharatNet**	● Provide broadband access to 250,000 Gram Panchayats quality fixed broadband (GPs) ● Connect all of India's households including rural through broadband by 2017
Hi tech city	**Smart Cities**	● Provide core infrastructure ●Give a decent quality of life to its citizens ● Clean and sustainable environment and application of 'Smart' Solutions. ● Strong IT connectivity and digitalization
Support Up gradation required in the Department of Posts	**Common Service Centers (CSCs)** **Digitization of Post Offices**	● e-governance related services made available to people in rural areas. ● maximizing delivery of e-services tocitizen. ● Setting up centralized data centres, ● Networking of all post offices ● Enabling digital payments
Increasing mobile Phone access and reducing gender	**Universal Access to Mobile**	● Provide mobile access to villages in far off areaswhich do not have mobile coverage gap in mobile phone access
Requirement of additional Hotspots	**Public Wi-Fi Hotspots**	● Creation of public Wi-Fi hotspots ● Enable citizens to access content without depending on mobile data
Cyberspace protection	**National Cyber Coordination Center (NCCC)**	●set up a center to safeguard India's cyberspace against potential threats
transition from technology-poor to innovation-rich society"	**India Stack**	● open APIs that enables development of payment-enabled applications, ● using Aadhaar as the base for authentication

Source:https://www.mygov.in/group/digital-india/

Conclusion and Recommendations

To compete globally information and communication technology (ICT) is a key parameter for economic development of any country. India stood 138th in the 2016 ICT Development Index out of a total of 175 countries which is quiet low. Digital India program is contributing a lot for digitization of the country but still there are lots of challenges in its way. It will definitely help in growth of IT sector in India and enhance the India ICT ranking globally. In order to make program successful lots of contribution is required from private, public sector and every common man.

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Employee Engagement: The Review of Opportunities and Challenges in Digital Era

Avneet Kaur*

Abstract

The world has undergone far reaching cultural, societal and economical changes based on the increasing dominance of digital technologies. In sum, these changes have led to the current period being characterized as the "digital age". In line with these changes, digital technologies play an increasingly prominent role in both the lives of employees and human resource management (HRM), which seems to be affected in multiple ways. Now is the time to redefine how we acquire and engage our employees. Engaging employees in lieu of changing technology therefore become more important and challenging as employee engagement is an essential factor for companies to consider when striving to increase productivity, execute business strategies, improve company performance and develop roles within the company. The engagement from pre employment to separation must change to support the changing digital era. In digital world companies are focusing on strategic alignment, employee engagement, leadership, performance recognition, and accountability to achieve business objectives and enhance stakeholder engagement.

This Paper aims to highlight the Recent HR trends with digitization, and challenges and ways to improve employee engagement in digital world.

Keywords: *Digitalization, Human Resource, Development, Retention,*

Introduction

Employee engagement is a critical factor for high performing organization to consider when striving to increase efficiency, implement business strategies, progress company performance and develop roles within the organization.

In order to increase business value and performance, business managers must develop a strategic plan that encompasses both stakeholder engagement and the integration of 21st century technology. This includes an encouraging work environment and the use of technology, allowing employees to succeed and maintain goals efficiently.

Nowadays Companies need different inputs and different viewpoints to make informed business decisions to their stakeholders. Employee engagement is a significant driver from a business prospective Employees get excited and passionate and become invested in success of organization when company engages them in all activities. In digital world companies are focusing on strategic alignment, employee engagement, leadership, performance recognition, and accountability to achieve business objectives and enhance stakeholder engagement.From an employee engagement perspective, organization considers it to be a business imperative. Without employee engagement, company can't execute on business strategy or can't achieve business goals.

The whole paper has been organized in the following manner. The first section is the literature reviews of various studies and reports done globally on employee engagement in digital era. The second section presents overall impact of digitalization on employee engagement in globalization digital world. The major issues and trends of employee's engagement have been explained in third section of the paper. Finally the paper ends with some productive recommendations and with a brief conclusion of authors.

Research Objectives

- To find the existing status of employee engagement in digital world.
- To explore the recent HR trends with digitization.
- To study the challenges and suggest ways to improve employee engagement.

Research Methodology

It is descriptive in nature and secondary sources of data were used to get a depiction of the employee engagement and related issues in digital age, by means of the published source like related previous research in journals, research reports, newspaper,and related bodies published reports and internet and website portals.

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Section-1 Literature Reviews: Employee Engagement And Global Scenario

The literature review has been divided into fourmain areas that might be briefly labeled as "digital employees", "digital work" and "digital employee management" and "employee engagement".

Digital Employees

As a first major area, the concept of "digital employees" symbolically refers to assumed larger changes in the core subject matter of the HR profession: labeled with various terms such as "digital natives" (e.g. Prensky, 2001), "millennials" (e.g. Deal et al., 2010) or "net generation" (e.g. Tapscott, 2008), it is assumed that the early, intimate and enduring interaction with digital technologies has shaped a new generation of people with distinctively different attitudes, qualifications, behaviors and expectations. Early literature on the phenomenon suggests that, based on the enduring interaction with digital technologies, this new cohort of people is generally characterized by marked digital qualifications, multitasking capabilities (in particular fast and parallel information processing), affinity for networking, learning by doing and preference of instant gratifications and frequent rewards (Prensky, 2001). Given this, literature is additionally concerned that these differences will aggravate or even prevent mutual cooperation and understanding between generations (e.g. Lancaster and Stillman, 2002).

The generation of younger employees grown up in a digital environment is both considerably more complex and considerably more heterogeneous, while there are, however, obvious differences that have to be considered (e.g. Bennett et al., 2008; Helsper and Eynon, 2010). The challenge for HRM therefore is to identify actual digitally induced changes in attitudes, qualifications, behaviours and expectation of younger employees, while yet avoiding any stereotyping and considering heterogeneity of actual changes. Based on this, the strategic and operative adaptation of HRM to a changing workforce constitutes a step necessary to support organizations further on. In this way, "digital employees" constitute a first notable area of digital changes and challenges of the HR profession (e.g. D'Netto and Ahmed, 2012; and the contributions in Ng et al., 2012).

Digital Work

A second major area might be called "digital work", referring to the content as to the organization of work. Relating to work content the ongoing digitalization implies an increasing automation of manual and routine work, and a slow but steady change of remaining tasks towards "brain and information work". Given that, all information today is either digital, has been digital, or could be digital" (Bawden, 2008, p. 19), information work of employees more and more depends on digital tools and media. In consequence, qualification demands placed on employees have continuously changed, and in particular "digital literacy" – understood as a broader set of technical as well as mental skills to systematically acquire, process, produce and use information (e.g. Bawden, 2008; Nawaz and Kundi, 2010) – turns out a crucial key qualification for more and more employees. In order to enable both individual employees as entire organizations to keep up with the digital change, HRM has thus to systematically prepare, accompany and often also cushion this enduring change of work content and corresponding qualification demands in its multifarious facets. Moreover, beyond work content in particular work organization is affected by digitalization. Digital technologies have enabled new forms of organizing work that range from single virtual workplaces, to virtual groups, teams or communities, and even to virtual organizations (e.g. Powell et al., 2004; Hertel et al., 2005). While there are diverse varieties of organizing work digitally, the overarching principle is to support and connect task performing humans by means of digital information and communication technologies, and to organize work across the borders of geography, organization and time in any desired way. As a consequence, members of such virtual units are often remote and unknown. Managing such members clearly differs from managing conventional employees in a lot of aspects such as leadership, performance feedback or development, while still a lot of practical aspects are not sufficiently tackled (Hertel et al., 2005).

Digital Employee Management:Electronic HRM

A third and final area of digital change might be labeled "digital employee management" and refers to the planning, implementation and in particular application of digital technologies to support and network the HR profession, a phenomenon also known as electronic HRM (e.g. Bondarouk and Ruël, 2009; Strohmeier, 2007). In the interim, not only administrative HR functions such as pay roll processing, attendance management or record keeping, but also managerial HR functions such as compensation, performance management or development are "digitally" supported and enabled, and thereby often deeply changed (e.g. Strohmeier, 2007). Moreover, digitalization has also affected HR organization, by establishing new actor categories, as for instance employees incorporated via digital self-service, and by establishing new kinds of cooperation subsumed as "virtual HR" (e.g. Lepak and Snell, 1998). In consequence, HR qualifications also show a clear shift to incorporating technical implementation and application skills (e.g. Hempel, 2004). This ongoing digitalization of HRM is basically assumed to offer large opportunities for the discipline. In particular, it is hoped to improve operational aspects, such as costs, speed and quality of HR processes, relational aspects, such as corporation and trust among HR stakeholders, and also transformational aspects, such as the strategic orientation, organization and standing of the HR function (e.g. Parry, 2011; Strohmeier, 2009).

Employee Engagement

As a changing communication surroundings calls for new approaches with an emphasis on communities, content, and dialogue rather than volume and channels, opportunities for employee voice and participation can be significantly improved by taking more account of the impact of digitalization.Employees are an asset to an organization. Using the organization's intellectual capital has become an important source of competitive advantage. (Artur, 1994; Becker and Huslid, 2000; Buckingham and Vosburgh ;2001) One way organizations can successfully navigate these challenges and capitalize on their intellectual capital is to foster employee engagement.

Robertson Smith and Markwick (2009) throw light on what engagement is and reveals that it is an important yet complex challenge, and there remains a great deal of scope for discussing the various approaches. Simpson (2009) discussed that the current state of knowledge about engagement at work through a review of the literature. This review highlighted the four lines of engagement research and focuses on the determinants and consequences of engagement at work. Susi &Jawaharrani

(2011) examined some of the literature on Employee engagement, explore work place culture & work life balance policies & practices followed in industries in order to promote employee engagement in their organizations to increase their employees' productivity and retain them. Work-life balance is key driver of employees' satisfaction.Ram &Gantasala (2011) investigated the antecedents and consequences of employee engagement in Jordanian Industry. Bhatla (2011) focused on the need for such employees and how their presence can improve the progress and work efficiency of the organization as a whole .Also focused on the challenges faced by the HR managers to improve employee engagement for an organization's survival.

Shashi (2011)reinforced the importance of employee communication on the success of a business. She revealed that an organization should realize the importance of employees, more than any other variable, as the most powerful contributor to an organization'scompetitive position. BijayaKumarSundaray (2011) focused on various factors which lead to employee engagement and what should company do to make the employees engaged.

Proper attention on engagement strategies will increase the organizational effectiveness in terms of higher productivity, profits, quality, customer satisfaction, employee retention and increased adaptability.

Siddhanta& Roy (2012) explored implications for theory, further research and practices by synthesizing modern 'Employee Engagement' activities being practiced by the corporate with the review of findings from previous researches / surveys.Singh& Shukla (2012) tried to find out what variables are significant to create an engaged workforce.

Section-2 Impact of Digitalization on Employee's Engagement:

The creation of digitalization is transforming how employesses connect and communicate. And that transformation isn't just happening in their personal lives; it's happening in the workplace as well. As a result, businesses that once saw digital technology as an interruption are finding ways to leverage this 21st century technology to help their employees stay more engaged and productive.

- Digital Design withthe Employee in Mind

Smart organizations recognize that digital tools in the workplace need to be designed and deployed with the employee's point of view in mind. After all, employees are people, and they are already using personal digital technology in their daily lives. Factoring this "personal" aspect into "professional" technology will help ensure greater employee engagement because the digital tools they are using at work are user-friendly right out of the box.

- Disruption ofold Corporate Cultures:

Today's employees want digital tools. And companies that want to keep their employees engaged and working for them are recognizing that they need to break away from the traditional strategies and structures of the past. This disruption of the status quo is giving rise to a new supportive environment within the workplace – a cultural shift that is crucial to the success of digital adoption.

- The Power oftechnology:

For most organizations, email has been the go-to technology for sending announcements and other messages to their employees. But in the digital age many employees seldom use email in their personal lives, making email at work no longer as engaging as it once was. While texting is a better alternative, many organizations are leveraging the power of video to engage employees and make announcements and messages more appealing. Designed for easy access and viewing on smart phones and other mobile devices, videos are also being used as powerful employee on boarding tools. Studies show that content presented in short video segments results in greater learning and retention.It's more about presenting content in a fun and entertaining way – a way that will make employees want to open their emails when they see that a video is attached. Video can also help give stiff organizations a personality makeover, improving relationships between employees and executives, and instilling a greater feeling of community into the workplace. Video grabs employees and spurs conversations, leading to better communication, collaboration, and engagement among the workforce.

- Advanceproductivity

Organizations that bring user-designed digital tools into the workplace are showing employees that they "get them". They are also showing they want to give them the tools they are already familiar and comfortable with to assist them in doing their jobs. Providing digital tools and access finally shows employees that business leaders trust that they will use them correctly, to their benefit in the workplace and to the benefit of the organization.

Section-3 The Major Issues, Challenges and Trends of Employee's Engagement

The work environment continues to be more and more complex. Without positive employee engagement levels, the translation to lower productivity and losing out to competition is only going to increase. There are challenges as well as opportunities for improvement that exist across multiple dimensions of the employee engagement. Now most organizations understand the importance of employee engagement. The digital age is here. Companies and organizations must embrace modern tools and tech in order to provide employees with the right resources they trust to ensure success. There are few of the trends of digital technology that reshaping employee engagement.

3.1 Issues and Trends

According to Forbes, employee engagement "Is the emotional commitment the employee has to the organization and its goals." What we have to realize is that an engaged employee is not just bothered about a huge salary and swanky benefits. It's about more than an airline gold club card and a company car.

An engaged employee wants to have a say in the business, they need to feel like they're part of a team that's working towards a common goal, and crucially, they need to feel that they are a valued member of the company – not just a tool for generating profit.

Organizations don't drive change its People do. No one can transform a company through its structures, systems and processes alone; it can be possible only through their people – all of whom go through their own personal transition. Employee engagement can be the heart of business success. By engaging employees as a team, they created a new business opportunity for company. In such times, employee engagement becomes even more critical for success. Organizations with higher levels of engagement can achieve more revenue increase. This is imperative during times of change when the company needs engaged individuals to deploy their discretionary efforts to fight for the cause while excelling at their jobs. Organizations cannot transform, and keep day-to-day business moving, if people are only willing to do what's expected out of them.

- **Employee feedback**: Employee feedback has a lot of positive impact on organizations. A report of *Global Human Capital Trends 2017 found that* data which clearly reflects regular employee feedback is essential in organizations. Feedback is critical to comprehend what is really required by employees, but by the alignment of feedback with the corporate purpose can be beneficial for digital world.

- **Relooking at performance management:** Performance is now measured on a continuous basis and is team centric, rather than having an individual focus.

- **The function of Design Thinking and Artificial Intelligence:** Technology is advancing at a very rapid pace, which is putting pressure on employees and organizations to keep up with such fast-changing trends and HR practices need to adopt design thinking, which means focusing on activities that put employee experience at the center. One significant development is the rise of artificial intelligence in framing employee experience strategies. a recent study by Genpact, predicts that humans and robots will be comfortable co-workers by 2020. If this is to be true, it this will also affect employee engagement indices across organizations.

- **The varying face of the global workforce:** Demographic change is a trend that is fundamentally changing relationships between businesses and employees today in digital world. For businesses, young population means a growing skills pack. This puts pressure on organizations to invest time and effort now to develop the next generation, and make sure they're ready to lead the company into the future. Younger employees focus on the future. They want opportunities to progress, to build and test their skills in as many areas as possible and regular and constructive feedback on performance. Now organizations need to react to this to keep employees engaged, and it become critical in order to fill the leadership pipeline as the baby boomers leave the workforce.

- **Communication** is essential to employee engagement. Companies are looking for ways to connect with employees electronically.

- **Alignment** of employee engagement and strategic goals of business.

- Employee engagement directly impacting reliability of service because they are more focused on their jobs and serving customers.

- **Map the Employee Journey** A new but growing practice within companies is to take a page out of the marketing playbook and to map the "employee journey," going far beyond a transactional "Hire – Train -Retain" framework to look at how relationships can be deepened to drive business results and organizational change. The purpose

of this exercise is to look at employee engagement not as a specific state, but as a relationship that can be developed and influenced with specific programs, especially digital touch points.

- **Measure and Develop Each Employee Relationship** Employee engagement is usually expressed as some sort of organization-wide number — average employee satisfaction, average employee engagement. The value of digital is that companies can now see at the individual level — through an employee's actions and their network quality — how their engagement is developing and hopefully deepening. By understanding where each employee is in their employee journey, managers can develop an "engagement plan" that meets each employee where they are.

- **Mobile apps for official updates and enterprise-wide communication-** It matters when important updates are communicated to employees directly. Communicating late or not communicating with employees directly can damage engagement. Digitizing this communication through mobile apps, which can be a real-time employee engagement platform for co-workers and leadership to share their opinions and feedback anonymously, will help employees feel heard at work and be part of the decision making process.

3.2 Challenges

Employee engagement can also be a means for innovation. When a company understands the challenges, engages employees, and finds a solution to address those challenges can be a kind of a well-managed company.   Basic deployment of technology is not going to be the solution. Companies need to focus on training their workforce across levels so that they understand the technology in their hands and how it can be used best to create engaged workplace cultures. Employee engagement is a very broad area that needs to be narrowed down. Disciplines such as performance management, goal setting, diversity, inclusion, leadership and wellness need to be pulled together and understood in unison. The focus needs to be able to provide enriching employee experiences in order to reduce turnover rates, increase productivity and also drive a strong customer experience. It becomes clear that there is a strong connection between internal culture and external perceptions.

But the big question is that: are the companies able to applying technology across the lifecycle of an employee and be successful in keeping the workforce engaged.In a digital economy, disruption, uncertainty and change are the norm. So it's a big challenge to keep people engaged in the digital age. Company can navigate the waves of change that will inevitably hit your business.

- **Difficulty inmeasuring the climate in the business**: Many companies face difficulty in measuring the climate of their business. They do not have healthy internal climate. They do not receive high employee engagement scores. Human Resources live in the challenging environment, and the HR Manager faces many issues. The changingdigital world does not support the empowerment and accountability of the workforce and hence become incapable in engaging their employees.

- **Lackof the competitive strategy**. Many organizations have no clear vision about its market niche. They just react to innovations brought by others. As the market is turbulent, the answers become chaotic. The firm does not send any positive signals to employees. It becomes a true follower.

- **Ineffective Leaders' engagement with employees:** while engaging employees, leadership plays a very important role. Right leader can engage employees in digital age in an effective manner which can hence help to improve the productivity and efficiency of employees. One of the challenges faced by organization in engaging employees is ineffectiveleadership.

- **Employees feeling for work: meaningful/meaningless:** It's impossible to be engaged employees at work if they feel like the work that they are doing is not engaging. Situations like these create strong feelings of unhappiness, inadequacy and frustration.

- **Relationship with coworker**: Research shows that employee' relationships with coworkers and supervisors will increase the psychological meaningfulness and employee engagement in the workplace.

- **Training of employees to become digitally sound:** one of the biggest challenges faced by organizations is how to train their employees so as to make them digitally sound. The digital age has opened up new worlds in training. Micro learning, which is small bite-sized training often, delivered via mobile device was not possible until just recently. E Learning has gone from clunky programs to fully immersive virtual landscapes and includes video, avatars and interactive elements to engage employees.

- **Engaging employees virtually:** Digital age has opened up ways to work virtually but does that guarantee that employees are engaged virtually to their organizations. How do employees who work remotely maintain a pulse on what the company is doing.How they become aware of w hat leaders are focusing on or how do they sense what other team members are doing in their company**.**

- **Making culture part of the everyday experience** – it is very easy to go digital but very difficult to make it part of everyday culture. Studies have shown that employees want purpose over everything else. Defining the purpose in a mission statement is easy but inculcating the same into everyday activities, especially virtually is extremely tough.

Section-4 Recommendations

Nearly all companies need to update the tools and technology that they use to engage their employees on an ongoing basis.

- **Frame a holistic strategy:** To create an enriching employee experience, strategies need to start right from potential to new hires to exit interviews. Employers are still hesitant in adopting this completely which more or less requires a radical change.

- **Professional development is the key**: career growth is the biggest contributor of higher retention levels. This is why organizations need to invest in their employees and give them opportunities where they can learn and grow continually during their work tenure.

- **Encourage collaborative learning**: just like human body, work is better when it is flexible.Flexible and virtual work is the next big thing happening in corporate culture. Companies should use technology to encourage workers to work virtually.

Ways in which companies can encourage collaborative learning are

- **File sharing:** companies can use Dropbox, Google Drive, or anything else. The fees for mass storage are cheap, the interface is easy, and you have the peace of mind that everything is safe and well-communicated, not to mention backed-up on the cloud.

- **Wikis:** Create a resource where employees can find all the information they need on their own – a self-access center for training and development. It'll help everyone get on the same page and keep all your employees up to date on the right way of doing things.

- **Project Management tools:** These sites help to create, organize, and delegate tasks, sharing certain elements into shared projects. These really do make life easier and help increase engagement and productivity.

- **Shared whiteboards and forums: sharing whiteboards and forums** tools will help to assist employees share ideas and work together. Again, the keyword is collaboration.

- **Mobile learning:** Mobile learning and online learning are changing expectations from employees. With generation Z on the horizon and ready to enter the workforce, this trend is not going to end soon. The modern employee juggles a hugely complicated, multifaceted life, balancing work, hobbies, outside interests, education and family. Therefore it is obvious that employees have access to the content and complete training at the time, place and pace that suits them. So companies should use training module that help increase flexible working practices and raise enthusiasm towards learning.

- **Intuitive platform for creating supportive work environment** – It's important to communicate clear goals and expectation to employees. Targets tied to larger organizational ambitions become more meaningful and effective. Let your employees know how their efforts are a contribution towards the strategic goals. Optimistic communication keeps employees informed and creates greater sense of worth. Intuitive platforms help in aligning performance management, 360o reviews, goal tracking and feedback for employee engagement.

- **Automating opinion collection through open communication-** Suggestion boxes and team meetings are by now considered orthodox ways to collect insights. Encourage open communication, to express ideas and perspectives through various web and mobile solutions available to help the organization improve employee engagement. Simplify feedback collection by setting up automated polls and analysis to identify areas that will most benefit from development investments.

- **Gamification to drive behavior change-** Gamification is one of the biggest catchphrases currently, making certain mundane activities enjoyable to drive behavior change, by applying game mechanics. Organizations have seen the impact of using game elements to engage employees, especially when it comes to e-learning and onboarding. An enterprise gamification platform can drive communication of corporate goals and objectives through web-based inductions and encourage quick completion of tasks by awarding badges

- **Optimize the environment**: Create a vibrant, energetic, stress-free workplace that encourages employees to give their best and work efficiently.

- **Personal development and growth**: If employees feels they are not making progress in their own personal development they will soon become disconnected and seek opportunities elsewhere. Ensure that each employee is constantly challenged so that they can grow. The greater a person's belief in their own ability to influence an outcome, the more likely they are to succeed with a new challenge. To help employees grow it is very important to build their confidence.

- **Recognition and positive feedback**: Both recognition and positive feedback play a very important role in making employees feel more competent, motivated and open to growth.

Conclusion

As organizations become more digitalize, they face a growing imperative to redesign themselves to move faster, adapt more quickly, learn rapidly, and embrace dynamic career demands. Leading organizations are moving fast the design phase to actively build new organization. As companies build the organization of the future, continuous learning is critical for business success. The new system calls for a learning and development organization that can deliver success. Automation, cognitive computing, and crowds are paradigm-shifting forces reshaping the workforce. Organizations must experiment and implement cognitive tools, focus on retraining people to use these tools, and rethink the role of people as more and more work becomes automated.

Recruiting is becoming a digital experience as candidates come to expect convenience and mobile contact. Savvy recruiters will embrace new talent acquisition technologies to forge psychological and emotional connections with candidates and constantly strengthen the employment brand. Rather than focus narrowly on employee engagement and culture, organizations are developing an integrated focus on the entire employee experience. Today, as never before, organizations do not just need more strong leaders, they need a completely different kind of leader—younger, more lively, and "digital-ready." to drive the organization to "be digital," not just "do digital." As digital management practices and alert organization design become central to business thinking. It is now becoming a business function focused on using data to understand every part of a business operation, and embedding analytics into real-time apps. New digital rules focus on experiential learning, process change, data-driven tools, transparency, and accountability.

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A Study of The Benefits and Challenges of Partnering With Online Ordering/Delivery Companies to Restaurant Owners/Management in Kharghar, Navi Mumbai : A Comparative Study of Foodpanda, Zomato, Swiggy

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Abstract

Since 2015, online food delivery has witnessed a 150% growth in the restaurant business as per a report by the RedSeer Consulting accounting for 30-35% of the total restaurant business in India. The restaurant business in Kharghar, Navi Mumbai has also joined this bandwagon of online food delivery by partnering with main players like Foodpanda, Zomato and Swiggy. Although online food-delivery platforms are expanding choice and convenience, allowing customers to order from a wide array of restaurants with a single tap of their mobile phone/tab, there is also a need to see how this has affected the restaurant owner/management. The purpose of this research is to study the benefits and challenges faced by the restaurant owners in Kharghar as a result of partnering with the food delivery platforms, namely, Foodpanda, Zomato, Swiggy, and a comparative study of these platforms. Our methodology is based on questionnaire based survey conducted on 50 restaurants in Kharghar node using the food delivery platforms mentioned above. The results showed that while there are many benefits for the restaurant owners like high volumes of orders and marketing of their restaurants to a wider market, etc., there are equal challenges like cut in to profits and high registration rates, commissions to keep up with the competitors, etc. These findings may help the new restaurant owners to decide what is in store for them as they partner with these online food delivery platforms.

Keywords:Digitization, Restaurant Business, Online Food Delivery Partners, Benefits, Challenges

Introduction

70 percent of the global population is projected to own a smartphone by 2020—that's less than four years from now for those of you counting—there's a lot of pressure on industries to keep up with the demand for digitization. The hospitality industry is no exception.

In order to stay competitive in the travel and hospitality marketplace today, customer service is the key. Achieving excellence in providing a superior experience is a game-changing differentiator for leading businesses. With the world going mobile, the best way to service customer needs is to connect with them directly on their smartphone—which they never leave home without. In fact, more than 85 percent of people carry their smartphone with them when they travel. Additionally, 77 percent of the millennial generation reacts more positively to businesses that offer texting communication options.

The Food and Restaurant industry is seeing significant digital transformation – Digital menus, kiosks, tablets on tables, digital tabletops and digital kitchens. Crucial success has been achieved in customization, food delivery, and payment options. Today, in India, Zomato, Swiggy, and FoodPanda are a few names that have made services like online table reservations, social media reviews, and mobile payment options.

Indeed, every business owner in the restaurant sector strives to have a highly organized mobile application and impressive online presence so that they attract large numbers of people in a short time span.

The purpose of this research is to study the benefits and challenges faced by the restaurant owners in Kharghar as a result of partnering with the food delivery platforms, namely, Foodpanda, Zomato, Swiggy, and a comparative study of these platforms. Our methodology is based on questionnaire based survey conducted on 50 restaurants in Kharghar node using the food delivery platforms mentioned above. Upon surveying it was observed that almost all restaurants are partnered with an online delivery company in Kharghar. It was also observed that despite the challenges faced by restaurant owners they had equal opportunities to market their product/restaurant and increase consumer awareness.

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Objectives

1. To study the benefits faced by restaurant owners for partnering with online food delivery companies
2. To study the challenges faced by restaurant owners for partnering with online food delivery companies
3. To do a comparative study of Zomato, Foodpanda and Swiggy

Literature Review

In an article in Forbes.com, the author states that [1]According to research firm <u>RedSeer</u>, India's online food delivery market comprising of aggregators and <u>cloud kitchens</u>, where the chefs prepare food in a physical outlet for orders that they receive online, grew at <u>150%</u> last year, in comparison to 2015, with an estimated Gross Merchandise Volume (GMV) of $300 million in 2016. With such an exponential growth in this segment there is also competition to grab the market share of these aggregators. In an article in researchonline website, the author says that in such scenario the [2]Customers expect low prices, quick delivery times and cost-saving options such as discounts and cashbacks. Despite the visible popularity of online food ordering, market penetration at the time of publishing is only around 0.7%. Some of the key players in this online food delivery market include Foodpanda, Swiggy, Scootsy, and Zomato. While such online food delivery applications are in tough competition with each other, there are others who are entering the market such as UberEats, Just Eat, Grub, etc. In a Zomato case study by Dr. Gomathy Thyagarajan she cites that [3]Zomato's competitors in India include websites like Just Eat and Foodpanda and internet search engines like Just Dial. Foodpanda when compared to Zomato, the volumes are very low. New players are trying to corner Zomato aggressively. An analysis of the biggest advantage compared to Zomato's competitors is that they have a field sales force. Thus, Zomato has a strong sales team which tries to pull in as many restaurants as possible to register with them and partner with them. While Swiggy and Foodpanda have a different modus operandi and differentiating points. For example, Swiggy has a its own delivery fleet which enables them to have control on the delivery of food in the lowest possible time from the restaurant to the customer, which is an important point in restaurant business. [4]Sathe (2015) in his article "Can Zomato Eat Foodpanda's Lunch in India?"discusses about the Zomato's starting of food delivery system in India. This new launch will make the Zomato stand infront of Foodpanda; a neck to neck competitor. Deepinder Goyal justifies the move saying it was for making Zomato ultimate place for food lovers. The article describes how Zomato is working on several things to improve user experience like restaurant ordering, payments, best place food discovery etc. Thus with its advantage of a big sales force and its entering into new areas, Foodpanda needs to be alert. Thus overall, it is important to study all the aspects about these online food ordering/delivery apps and its effects on the restaurants and the consumers so as to form a fair view of these players.

Research Methodology

Primary Data Collection

To study the benefits and challenges faced by Restaurant owners who are partnered with online delivery apps, 50 restaurant owners in kharghar were approached. A questionnaire was given to the owners and were interviewed simultaneously to understand their partnership with the online delivery companies.

Secondary Data Collection

Related Research papers from the internet were studied in detail. Also a lot of helpful data has been sourced out from the internet. Food Bloggers were pretty informative to give a firsthand glimpse of the research.

Sample Size

50 restaurant owners from the area of Kharghar, Navi Mumbai were selected using random sampling. They were interviewed and asked to fill up a questionnaire.

Data Tabulation

Qn 1: Does the restaurant offer online ordering/Delivery through any of these partners (Food Panda/Zomato/Swiggy)?

Number of restaurants offering online orders or delivery, are as below

Food Panda	Zomato	Swiggy
40 – 80%	49 – 98%	43 – 86%

Note: The above figures are based on surveys conducted across 50 restaurants in Kharghar

Qn 2: Registration Details of online food ordering or delivery services, furnished below. This is based on the type of subscription – Paid or Free

Listing Type	FoodPanda	Zomato	Swiggy
Paid	40 – 80%	21 – 42%	43 – 86%
Free		28 – 56%	

During the course of the survey, we also observed a few other online food delivery services applications & they were

    a. URI

    b. Natures Basket

Qn 3: Benefits of free online listing are furnished below

Across 3 online food services & delivery app which were surveyed, only Zomato has an option for free listing. The benefits of free listing are

1. Maximum online viewers & Free branding across online users

2. Good online footfall which brings brand awareness across online viewers

3. Attract callers for enquiries related to offers, options or services (e.g. hookah, corp discounts, bulk orders, booking tables etc.)

Qn 4: Benefits of paid online listing are furnished below

1. Brand consciousness through customer reviews

2. Builds customer engagements with a view of menu online which attract new & repeat orders

3. Features in the search results, when searched online with certain key words such as

    a. Location or area

    b. Cuisine – North Indian, Italian, Chinese, Deserts, Donuts, Coffee, Continental, Ice cream

    c. Type of dining – Take Away Outlet, Fine Dine, Live Music, Fast Food, Snacks, Hookah

4. Restaurant Owners (subscribers of online apps) have option to do the below due to paid subscription type

    a. Eliminate negative customer feedback

    b. Data Analysis of online viewers like

        i. How many online footfalls

        ii. Which were the most popular dishes ordered

        iii. Which area / apartment / locality had maximum orders

    c. Accept customer feedback & acknowledge improvement areas

Qn 5: Summary of subscription type & rates charged by the online apps to the restaurants

Apps	Rate of Commission (Range)	Subscription Type
FoodPanda	13% - 15%	per delivery
Zomato	no commission	fixed monthly
Swiggy	16% - 19%	per delivery

Note: Zomato or the Restaurant owners/Subscribers did not wish to disclose the monthly subscription amount. However our survey could deduce that each restaurant had a unique amount of subscription basis the below

1. Business/Enterprise type

    a. new or established

    b. size (e.g. customer base, revenue realization capacity etc.)

2. Locality type (e.g. densely populated, famous, crowded, competitors in the proximity, parking space)

3. Demand of the type of cuisine

Qn 6: Summary of subscription type & rates charged by the online apps to the restaurants

Both FoodPanda & Zomato did not have food delivery services however they have recently commenced this.

AppsFood Delivery ServiceComments

FoodPanda	No	Qualifies orders based on a predefined order amount threshold
Zomato	No	Qualifies orders based on a predefined order amount threshold
Swiggy	Yes	No minimum order. Delivers even a Vada Pav.

Qn 7: What **are some of the benefits that restaurant owners get from these online apps?**

1. Consumer awareness – **100% agreed**
2. Sales & Marketing of their restaurant – **100% agreed**
3. Increase in daily/monthly sales - **56% Agreed**
4. Understanding of demand & sales seasonality – **20% Agreed**
5. Ease of delivery – (**Only for Swiggy**)
6. Loyal customers – **10% Agreed**
7. Any others

Qn 8: What are some of the challenges that you (restaurant owners) face due to these apps?

a. No profit (as the commission rates are high) - **20 % Agreed**
b. Higher registration charges – **56% Agreed for Zomato**
c. Difficulty to maintain the app (internet problems, extra charges for delivery etc) – **100% Disagreed**
d. Too much competition with other restaurants (for giving discounts online etc) – **100% Agreed**
e. Wavering customer loyalty (Customers go to restaurants with higher discounts) – **100% Agreed**
f. Unreliable delivery staff (food gets cold) – cancellation of orders – **76% Agreed**
g. Inability to deal with volumes of order (sometimes the orders are too much/sometimes the orders are less) – **100% Disagreed**
h. The distance of delivery may cause negative feedback in case of foods like ice-cream melting, French fries going soggy – **20% Agreed**
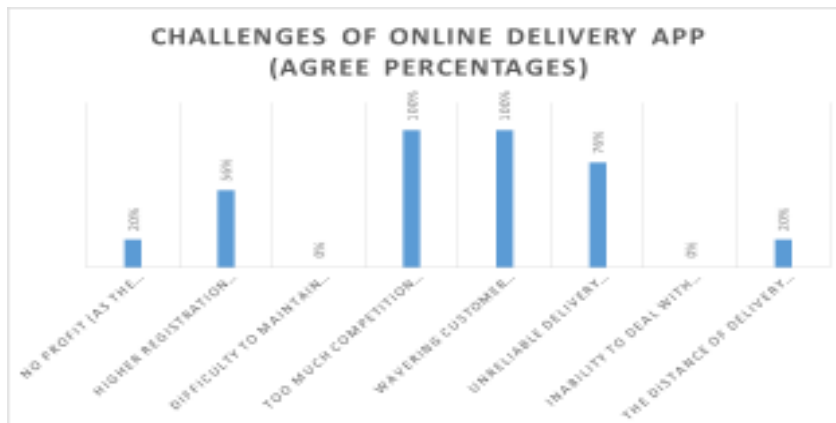
Qn 9: How much percentage of your monthly sales is through online food ordering/delivery apps? (If monthly sale of restaurant is 20,000 and 10,000 is coming from online food ordering and 10,000 from dine-in or walk-in customers, then the answer is 50%) Try to give a rough estimate.

Sales from Online	Up to 25 % of Sales Ordering	Up to 30 % of Sales	Up to 35 % of Sales	Did not disclose
	26%	16%	16%	42%

Qn 10: Taking in to consideration all the pros and cons on a scale of 1 to 5 how satisfied are you with the business you get from online food ordering/delivery app?

1(Not satisified)	2 (Still not sure)	3 (Doing okay)	4 (Satisfied)	5 (Extremely Satisfied)
12%	10%	46%	28%	4%

Qn 11: Preferred Online Food delivery app (Rate 1 to 3)- 3 is most preferred

	Zomato	Swiggy	Foodpanda
3 Most preferred	40%	20%	40%

Data Analysis

1. **98% restaurants in Kharghar are registered/partnered with online delivery platforms**. As is the ongoing trend in the entire world with digitization and online apps being used for every service, it was seen that there is a similar trend in the restaurant business in Kharghar. It started with pizza outlets and now with online apps

like Zomato, Foodpanda and Swiggy almost every restaurant/food outlet feels the need to be partnered with one or more such food ordering/delivery apps.

2. Presently, Zomato, Foodpanda, Swiggy are the main online delivery platforms available for Restaurant owners. India's food tech space is currently locked in a three way between Zomato, Swiggy and Foodpanda. The three companies have come from very different places to end up competing in the food delivery space — Zomato started off as a restaurant discovery and content platform all the way back in 2008, Swiggy is a homegrown player that specializes in food delivery, and Foodpanda is a global brand founded by Germany's Rocket Internet. These three are the top competitors even in Kharghar Restaurant business scene.

3. The business model for Zomato, Foodpanda and Swiggy differ from each other. **It was observed that Foodpanda and Swiggy charge the owner on per order basis which ranges from 13% to 19% and Zomato charges a monthly fee from the restaurant owners which varies from restaurant to restaurant**. Thus, even though the online delivery apps operate on different models, they are in tough competition with each other.

4. **Restaurant owners who are free listed with Zomato cannot avail much benefits from the app.** While apps like Foodpanda and Zomato and Swiggy make it easy for a customer to find different restaurants and place an order for delivery, restaurants have mixed feelings when it comes to these aggregators. They make it easy for the customer to order online, and can lead new customers to the restaurants. On the other hand, the restaurants have to pay high registration charges to Zomato if it wants all the benefits offered by Zomato. Although free listing is possible with Zomato, it is just to bring your restaurant onboard the Zomato platform, there are no benefits with the free listing of Zomato so free listing is of no use.

5. Since **Swiggy has their own fleet of delivery boys, it does not have a minimum order policy**. Swiggy charges a commission from the restaurant and also charges a delivery fee from the customer. Users can order anything without worrying about the minimum order policy, they just have to pay delivery fee and get food delivered even if it costs only Rs 50. On orders which are higher than a certain amount Swiggy just takes the commission from the restaurant. That is a differentiating factor for Swiggy. Whereas Foodpanda and Zomato do not provide delivery personnel.

6. **The major benefits to restaurant owners for using the online delivery apps is consumer awareness (100%), sales and marketing of their restaurant (100%).** Over the last few years the food and restaurant business have utilized online apps to enhance their overall performance, efficiency, quality, and customer satisfaction. It gives the restaurant a common ground where they can come closer to their customers in the online world, create a buzz for their restaurants, advertise and create a brand image. Of the many benefits, the two that stood out in our survey were consumer awareness and sales and marketing of the partnered restaurants. It helped the restaurant create an online presence of their restaurant and helped market their products to a wider audience in a faster and efficient way compared to the old-school pamphlet and newspaper advertisements.

7. **The major challenges faced by restaurant owners is too much competition, wavering customer loyalty, unreliable delivery staff and high registration/commission charges.** It was also observed that along with the benefits that these online food partnering apps offered there were also some challenges which the restaurant owners in Kharghar faced. With so many restaurants catering to every taste bud, there are more than a couple of restaurants opening up every week at every nook and corner. To keep up with the competition, every restaurant is offering more and more discounts and offers on these food delivery portals to attract customers. Hence, the major challenge faced is that there is too much competition. The second is wavering customer loyalty. The customer tends to go where there are more discounts or a new restaurant as there are so many options for the customer. Also another challenge is that the food has to reach the customer hot and fresh to be consumed as soon as possible but as it is dependent on the delivery staff there are some issues with the quality by the time the food reaches the customer. Another challenged seen was that the high registration charges and per order charges seem to cut in to the profits of the restaurants. Sometimes the commissions are as high as 15% per order and it is a challenge to keep up with the profits.

8. **It has been deduced that 25% of sales is contributed by the online food delivery partners to restaurants**. In our survey of the Kharghar restaurants, it was observed that almost all of the restaurants were partnered with the online food delivery apps. The main reason for restaurants to partner with these online food ordering/delivery apps is to increase their business and make a brand image. It was observed that about 25% of their business was generated by these online applications and it is a growing trend and in the coming years it will see an upward rise.

9. 46% of restaurant owners are doing quite okay by partnering with online food delivery partners

10. Of the three main player in the online food delivery apps, the **most preferred online food partner** by restaurant owners in Kharghar **is Zomato (40%) and Foodpanda (40%) and followed by Swiggy (20%)**. Although it has been seen that Swiggy is taking over Zomato and Foodpanda in the other parts of the country, in Kharghar it is still in its nascent stage at 20% as it was recently launched in suburbs while Zomato and Foodpanda have been here for quite some time. Zomato and Foodpanda are in a tie position when it comes to their preference by the restaurant owners in Kharghar.

Conclusion

The first objective was to study the benefits and challenges faced by restaurant owners in Kharghar, Navi Mumbai who are partnered with online delivery apps such as Zomato, Foodpanda and Swiggy. While major benefits like consumer awareness and sales and marketing of their restaurant were a big hit, things like increase in sales/volume and easy of delivery was not very prominent due to online delivery apps. Also the restaurant owners faced many challenges such as too much competition, wavering customer loyalty, unreliable delivery staff and high registration/commission charges. Hence, it was observed that while online delivery apps is the need of the time and a catching trend, the restaurant owners should also be aware of the challenges that arise by partnering with these delivery apps and should err in the side of caution.

The second objective was to do a comparative study of the major online delivery app players in the market viz. Zomato, Foodpanda, and Swiggy. It was observed that Zomato and Swiggy are Indian origin companies while Foodpanda is of German origin. Zomato has a monthly fee charged to the restaurant owners which differs from restaurant to restaurant, while Foodpanda and Swiggy are charged 13%-18% on each food delivery to the restaurant owner. Zomato and Foodpanda do not provide food delivery personnel in Kharghar, while Swiggy has its own delivery personnel. Overall, it is observed that the most preferred online food delivery partner of the restaurant owners in Kharghar is Zomato (40%) and Foodpanda (40%) and least favourable is Swiggy (20%).

Suggestion

After undertaking this research and studying the benefits and challenges faced by the restaurant owners in Kharghar, we would like to suggest that the new restaurant start-ups should weigh their pros and cons thoroughly before partnering with the online delivery apps such as Zomato, Foodpanda and Swiggy. Especially, taking in to account the higher registration charges of Zomato which can cut in to the profits of the restaurant. They can definitely go for the free listing. After few years of establishment and stabilization, these startups can definitely benefit from the above stated advantages from these associations.

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Recruitment and Selection in the Digital Age

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Abstract

Times have changed, and technology now is becoming the most powerful driving force in bringing in a pragmatic shift to the way industry functions and organizations operate. Investments are pumped in by organizations to build, use and put to practice scientific ways, methods and tools with innovative and yet unique ideas to stay competitive and meet business objectives. With rapid industrialization and technological advancement across all industries, Business Managers and Recruitment Teams are now able to rely on more dependable and tested methods, tools in making calculated and data driven decisions. HR Industry has also witnessed a significant transformational change in the way it used to operate traditionally. It is not just a change but a transformation of old processes which are now getting replaced with modern advanced tools and techniques that help in quick decision making and address the challenges of longer wait time in closing business demands and avoid cost overruns which are key drivers for any organization to fight competition and survive. HRM function is now banking on tools and applications for data logging, updates, data retrieval and secure storage of information. In this paper, an attempt has been made to highlight some of the key changes in the Recruitment practices in HRM space. This paper shares the important stages and provides more insights on the Recruitment and selection process followed to identify talent pool for any organization. It also connects references to the modern-day tools and methods in comparison to the traditional methods used in recruiting right talent. It also captures the benefits that Hiring Managers have been reaping by relying on these tools and methods which address the pain areas and issues encountered during recruitment of talent pool. Most of the widely used tools and methods being followed by Recruitment Managers have been elaborated and the effectiveness of such tools in meeting business objectives is discussed. It also provides statistics from respondents who believe Digital HR is the new widely used and accepted approach, along with Smartphone Internet Users and Social Media usage. In conclusion it is assessed that technology advancement will continue and in this digital era,organizations should invest in HRM Staff and upscale them by training and educating them from time to time to optimally use such tools to reap benefits which is the ultimate objective of any organization for investing in such modern tools and methods.

Keywords: Transformation, Digital HR, Scientific Methods of Recruitment

1. Introduction

'Change' is not what the world is witnessing this millennium, this is an era of complete 'Transformation'. There is rapid scale development across various streams of studies, professional practices, new levels of advancement across all industries be it agriculture, manufacturing, service or technology driven organizations. These days it is technology which is drivingthe wheel of progress and development in motion by making every organization put in all efforts to stay competitive in the market by trying innovative methods to achieve its goals and meet its business objectives.

The lifeline of any organization is not funding and investments anymore, it is the Talent Pool which is the key driving force in success of the organization. Knowledgeable and skilled workforce is not just essential for the growth of the organization but is very critical in delivering the results quickly without cost overruns. Talent Pool of organization is adaptable and able to quickly align to organization's Leadership Team vision and collectively work and contribute to ensure their organization is widely recognized and accepted as a competent brand. DNA of the organization is its core values, policies, success criteria, vision which is defined by the Leadership Team. It is the responsibility of the Leadership Team to ensure that the DNA of the organization seeps in and gets deeply rooted in all employees in meeting the larger objective. With changing times, globalization, flexibility and ease in travel, mobility between regions, states, countries and geographies– staff retention is a big challenge. It is not easy for any organization to keep its staff engaged and motivated all the time which results in attrition over a period. With attrition comes even more bigger challenge of backfilling the positions with qualified, experienced, knowledgeable and skilled resources.

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Traditional ways of hiring have almost got replaced with modern and innovative ways of hiring. HR Teams are following new methods with the help of several tools, applications which provide several options in sourcing profiles and selecting candidates. Hiring Manager's job starts right from seeking inputs from the Business Engagement Manager on the Job Description and expectations for the open positions to sourcing profiles from the market and on-boarding the candidates. Modern day technological advancements and developments have transformed the traditional HR Recruitment practices. In this new age, hiring is very different compared to hiring two decades ago, organizations are seeking profiles and finding prospective candidates ideal for the critical roles in the organization through digitized recruiting techniques.

2. Digital Age Changes to Recruitment & Selection Practices in HRM

'Digitization' or 'Digitalization' is often synonymously used to convey the process of converting any information, data, analytics in digital format. It also means services are available for all users like Data Producers, Data Processors, Data Consumers electronically, information and content is available, tracked and updated online. Material, information or content in the form of text, photographs, voice is now being converted in digital way with the help of modern day instruments like scanners, new age computers, video cameras etc. With the advent of modern day advanced instruments, tools, techniques – hiring in the industry has witnessed a transformational change. Hiring has evolved from the stage of 'Personnel Management' to next level larger scope by covering various facets of human involvement and contribution in the organization and now being termed as 'Human Resource Management'. Multi-national organizations are the ones who are far ahead in the digital race and are banking high on the advantages of the digitization(**Appendix I**). The dynamics of hiring have now transformed the way candidates are identified for any open roles.

As per Recruiting Software Impact Reportdated May 2015 by a world's leading digital marketplace for business software:

- Use of Applicant Tracking Software (ATS) is in practice by 75% of Recruiting Managers(**Appendix II**)
- 94%of Recruiting Managers clearly acknowledge that use of Software has significantly improved hiring process.
- There is only a mere 5% of the Recruiting Managers who believe use of Software has a negative impact

Digitization has changed the way we now operate in recruiting the right talent. There are different stages of hiring in HRM and at each stage there is involvement of technology, application, tools, approach and methods to complete. Hiring is now being termed as e-Recruitment or e-Hiring which is a practice of using and applying all methods in the process of hiring or recruitment electronically to find, shortlist, assess, interview and hire the right talent for the open positions to be filled. It simply means creating records online, uploading information or content required for hiring online, updating status updates and periodic changes online, extracting reports and information as and when required in desirable formats in digital form. Gone on the days when there was heavy paper work and manual tracking and updates of candidate profiles.With digital transformation age, the industry is now much more efficient, structured and organized without any limitations and is now widely covering industries globally. We now are quick in handling tons of information and material during the hiring process with data storage and super quick retrieval feature in electronic format.

3. Recruitment and Selection Stages

Here we lookat the most commonly understood stages in hiring along with new age changes that have helped in taking recruitment standards in the industry to the next level.

3.1 Requirements Gathering – This is origin stage when Hiring Manager gets lead from the business or business engagement manager on total number of positions to be filled, whether these are backfills to cover roles or new ramp-up projects. Hiring Manager also takes a note of minimum qualifications, job descriptions and any special requirement of niche or special skillset required for the job.

3.2 Wider Audience Notification & Reach – Once the required leads are available and information is on hand to hire required talent for a given open position, it now becomes the responsibility of the Hiring Manager and his team to rely on the approved channels or methods of communication and notification to the wider audience. Based on requirements - the reach to audience can be internal first – where the notification goes out to employees in the organization and based on further needs it gets rolled out as an advertisement to the market. This stage defines the reach to the target audience and the penetration levels in making the notification a success by ensuring it reaches the desired recipients.

3.3 Scouting Profiles – With rampant competition in the industry to hire the right talent in the shortest possible time and close the hiring requests, the Hiring Manager and his team immediately start the preliminary scouting of profiles from historical cases interviewed and kept on hold or set aside for other reasons. The hiring team also looks out for internal teams by checking with the Resource Management Group (RMG) if any candidates are available from the 'Bench' pool of the organization. Bench pool is workforce which is not on active project payrolls, but the cost of these resources is borne by the organization. Bench pool can be formed out of various developments like project ramp-down, end of project, resources kept on standby in anticipation of new business, resources hired for project which did not materialize in confirmed deals, it could also be additional hiring to address the risky attrition trends in the industry. For multi-national organizations, it is much easier to scout through profiles electronically find relevant profiles internally before going to market.

3.4 Shortlisting Profiles – From the huge list of available profiles sourced either internally or from the job market based on the key words from the Job Description, the hiring team shortlist several profiles and set a preference priority order for assessment and screening further. From the tons of resumes available internally and from the market – it becomes easy for the Hiring Manager and his team to zero-in on the most relevant profiles that are suitable for filling the open position in the organization. These days, hiring teams are trained well in identifying the right profiles with the help of new tools, applications and methods. In the traditional hiring process, there was heavy paperwork - candidates' profiles were physically checked, read and reviewed for relevance and suitability matching against the job requirements. These days the recruitment team is so sophisticated and advanced that hundreds of resumes can be easily run through in a matter of seconds and required shortlisted profiles are available for next level stage in the process of hiring.

3.5 Initial Screening & Assessment–Once the relevant profiles are shortlisted, the real connect with the candidate starts from this stage which allows the recruiters to assess the need to have the candidate for the interview rounds. Various checks like the candidate's willingness to look for a job change or openness to explore the new opportunity and inclination to join a new organization or new role, his or her skillsets, work experience in number of years relevant to the job opening, notice period, current pay, expected pay etc are assessed. If the selection criteria during this stage clears majority of the check boxes it materializes to the stage of lining up the candidate for Interviews.

3.6 Scheduling Interviews–After a candidate has been lined up for interview, it is the recruitment team's responsibility to ensure interviews are lined up with the business managers for candidate's final assessment and suitability for the role. Typically, each organization mandate2 levels of interviews out of which 1 is a mandatory face to face interaction with the candidate. Depending on the criticality of the role, business needs, Project or Client requirements - there can be more than 2 interviews with the candidate. With new age high definition technology interface – face to face interviews are now a virtual reality by way of video calling or live video conferences.

3.7 Preliminary Background Checks–After a clearance from hiring team and a go-ahead from the business managers to hire, the next steps of preliminary background checks get triggered. At this stage – the basic documentation like ID proof, address proof, educational qualifications certificates, any special skill certifications, current and previous organization profiles along with compensation details are captured for the next stage which firms up for final offer fitment and job offer roll-out to the candidate.

3.8 Final Offer Fitment and Roll-out–This is the most important stage in near closing the open position and it is at this stage the recruitment team and hiring managers make a calculated decision for role fitment to match the candidates level or hierarchy in the organization. The hierarchy levels are different and very likely have a sub-group level layers mapped to specific role. This is very critical to define the correct or near-match of candidate's profile with the new organizations level at hierarchy level including sub-group level if any. Based on the hiring level and role – the compensation package that will be offered to the candidate is decided and once all internal approvals are in place, the offer is officially rolled out to the candidate.

3.9 Offer Acceptance & Joining Commitment – Now that the job offer is rolled out to the candidate, it becomes the Hiring Manager's responsibility to actively start engaging the candidate for Job Offer acceptance by explaining the role offered, compensation break-up and clarifications along with joining commitment keeping in mind the current notice period (if any) that employee needs to serve to join the organization. Based on a confirmation that the candidate has officially accepted the terms and conditions and is ready to join the organization on a specified date, the joining date is then communicated to the business managers so that required level of preparations are initiated. The preparation could be staff planning or communication to key project stakeholders or clients on the availability of the staff to run the project. This stage often is referred to as silent phase where there is nothing much happening except for the wait time which is typically the notice period wait for the candidate. On an infrequent basis though it is advised to the Hiring Manager to keep periodic updates on the joining status of the candidate till the time the candidate is on-boarded completely in the organization.

3.10 On-boarding, Induction and Handover to Business Team–The final stage where the Hiring Manager's task materializes completely and gets closed in the records as hiring request gets completed and closed. It is at this stage that the candidate is officially inducted in the system or the organization. There are different methods and joining formalities that are initiated, and this varies and differs from organization to organization. The HR Operations Team now steps in to welcome the candidate by giving an overview of the organization policies and at the same time capturing all details required for recognizing the candidate officially as a new employee of the organization.

4. Recruitment and Selection Approach & Methodology in the Digital Age

HR technologies have significantly improved in the past 2 decades with the advent of automation, digital transformation and advanced concepts like artificial intelligence. Organizations are continuously evaluating the need to improve existing methods and ways of hiring talent. There have been several changes and advancements right from the stage of requirements

gathering logs to onboarding on the candidates in the organization. Against each stage of hiring there are tools, devices, applications, approach and methodologies widely used in the Indian IT Industry for hiring.

4.1 Hiring Request Templates, Forms – all established organization use pre-defined and approved Hiring Request Forms or Templates. All such templates have several details connected with the hiring requirements. These forms capture the role or level open to be filled, number of positions to be filled, minimum and maximum number of years of experience, job description, special skill sets required, hiring project, business manager etc. These are in electronic form and are easy to update, store and retrieve at any point of time. In some organizations these forms, or templates are available and updated online.

4.2 Online Applications &Tools – The most efficient way of handling heavy load of information, material and content is by using online tools and applications. It is very common for several multinational organizations to use online web pages, SharePoint portals, folder directories, access database tools etc to log requirements. These tools are so advanced that they help in quick access and retrieval of information as and when required. Another advanced feature of these tools is the audit tracking function which gives a clear audit trail of what changes have been done at what point of time and details of the person making the changes to the request logs. There are several ticketing tools developed by several IT or Software Development companies and these are available in the market to track hiring requests in a more organized and efficient manner. Online tools also help in creating a candidate's profile repository and the sequence of hiring stages associated with the candidate, for example – it is faster, quicker and much easier for a Recruiting Manager to pull data of a candidate to see if there were any historical instances of hiring and key action to be taken should the profile come up for another round of review. Such tools also help identify candidates who are repeats or earlier rejects to the same job opening or any other new opening ensuring administrative time and effort is saved.

4.3 Status Tracking – Online applications or tools not only help in extracting information as and when required, these help is making critical decisions with regards to hiring. For example – these tools flash the age of the request. Any hiring request is sitting in the hiring queue as a request logged with ageing of several days can trigger action items for the Hiring Manager and in some cases if the ageing is beyond acceptable days, escalation is routed to the senior leaders or business owners for timely action and closure.

4.4 Internal Job Portal (IJP)– Resources in these times are more flexible, agile and mobile. Employees keep surfing Internal Job Portal for better opportunities or opportunities that meet their geographical preferences or match their long-term career objectives. Majority of the multi-national organization have a dedicated Internal Job Posting portal available for employees to search for new or relevant positions created historically. Organizations are following the principle of promote employees first, internally hire or redeploy as second option and if talent is unavailable, only then go to the market as the final option to identify candidates. The Resource Management Team also plays an important role here in identifying any key roles open from the Bench Pool in the organization. All Bench Pool data is maintained electronically, extracted and reviewed from time to time to map to the IJP portal requirements. Electronic form of data availability helps in quick and easy identification and mapping of bench resources to the internal organizational requirements and contributing to reduction in costs by making bench resources billable.

4.5 CareersSection on Company Website- Also with the web age advancement and information being made available at the click of a button, candidates are continuously on the lookout for Careers Section page from the organizations' official webpage. This ensures there is quicker reach and interested candidates have the flexibility to go through the job requirements and they can express their willingness to apply for a job posting directly on the company website. Besides this, a well maintained and appealing job or careers section on the company website carries a positive impression about the company as a brand with the web page visitors.

4.6 Mass Mailers – With technology, electronic emails can be relayed to several hundreds of recipients in one go. Therefore, the reach is wide on a significantly large scale, this approach however, is generally used for hiring freshers or start level resources in the organization. For senior levels hiring and key positions, it is advised not to take the mass mailer approach.

4.7 Mobile Communication– Mobile users with internet feature or facility in India was estimated to reach around 420 million by June 2017 with the rural India growing at a much higher rate than urban India says a published by Internet and Mobile Association of India (IAMAI) & market research firm IMRB. According to a report titled Mobile Internet in India 2016, there were 389 million mobile internet users in India as on December 2016. Urban India, with 51% penetration is fast reaching saturation point**(Appendix III)**. For 2017 the number of mobile phone users in India is expected to rise to 730.7 million**(Appendix IV)**. In this same year the number of smartphone users in India is predicted to reach 340 million and could reach almost 468 million by 2021.Smartphones are now advanced with numerous applications and communication tools allowing users the advantage to stay connected to the internet while being mobile. On the go access allows to check and respond to SMS, Emails, App Notifications, other communication means like WhatsApp are

widely accepted and used amongst the urban educated clan. Almost all key players in the market have launched their Android or Apple Store (IOS) based 'Apps' which allow quick and easy access to their job profiles and keep a track of developments and communication with several Recruiters who can engage the candidates through 'App' interactions.

4.8 Industry or External Job Market Portals – Traditional methods of jobs posted in newspapers, magazines, circulars are apassé now. It is the digital age with advanced infrastructural developments, good facilities with wider reach and connectivity, it is now very easy to access internet virtually from any place. Urban population is extensively using Job Search Portals like Naukri, Monster, Timesjob, Industry Blogs, Professional Community websites like Linked In etc. These job portals or professional community websites allow two-way communication, there are several features for both - User and the Recruiter that help in obtaining desired output based on time and need. Several of these job search portals provide professional services to the organization by providing data and statistics like active profiles, recent visitors, key word search match criteria, geographical preferences etc. and this eliminates the time spent to identify relevant job profiles for a job opening. From time to time, Job Portals also organize Job-Fairs where list of job openings is shared, and prospective candidates reach out to the Job Portal or the Job Portal Team reaches out to the candidates for fast tracking the closure of the positions.

4.9 Online Advertisements – Undoubtedly, internet is accessed each day by the urban population for news, updates, latest developments around the world, key events of educational topics etc. Organizations are now banking heavily on Digital Marketing which is addressing the key challenges that any Recruitment Team faces and is helping them close the business needs and requirements in short durations. These days anyone accessing a webpage or information, or email or web content online will get to see several advertisements. There are several Digital Marketing Teams working innovatively to woo the prospective candidates by flashing striking and appealing pictures, comments, phrases and pop-ups that catch their attentionand result in users clicking the message and getting directed to provide inputs that meet Recruiters needs in selecting relevant profiles.

4.10 Social media and Networking Sites– Networking through Social media websites has taken the educated class by a storm. The urban class uses social media websites like Linked In, Facebook, Twitter etc. **(Appendix V)**

Some key statistics from Talent-works webpage for year 2016:

- The % of candidates who rely on social media channels to find out more details of the companies stands at 59%, they also take the approach of checking online careers section webpage of the organizationthey are interested in.

- 48% of candidates search for their job using social media channels. In a study conducted by Jobvite, close to 50% of the candidates used social media channels in search of a job.

- Employers brand also plays a significant role - 69% of active candidates will apply for a job at anorganization which manages its brand very well. Trust factor is established by candidates on organizations which are active with status updates and regular activity updates on social media. Responses to social media queries by organizations are very closely tracked by candidates.

- There is 87% potential to hire the best talent if companies are following a well collaborated and integrated approach to manage talent.

4.11 Data Analytics– This is a whole new approach in sourcing profiles and identifying the right talent for an open position in the organization. Market has been inundated with hundreds of software tools that help in analyzing the requirements, output expected basis which results are supplied for a very informed and critical to business decision making. Organizations build such tools internally or rely on 3rd party to supply with the analytics for decision making. Such tools help in filtering the relevant profiles from several hundreds of profiles to be reviewed, identify any key distinguishing requirements, skillsets. In some cases, such Data Analytic tools help in framing interview questions, determining the ideal level or hiring hierarchy and based on inputs supplied also provide a summary of the recommended pay package given the constraints and boundaries Recruiters are supposed to work within. It saves significant time in arriving at decisions based on data analysis through tools which otherwise would have taken several days if manually assessed with possibility of the errors in decisions making. Various Metrics and Measurement Tools are being widely used by most of the organizations in fine tuning the short term hiring strategy and thereby giving a direction to meet the long term hiring strategy objectives including cost optimization and driving efficiencies through scientific means by making calculated, statistical decision making based on data.

4.12 Video Screening – with access to high-definition cameras, smartphones, more and more candidates are now using Video Profile way as one other innovative methods of reaching out to the Recruiters. Video screening is helping the Recruiters,and this is replacing the outdated way of screening profiles on phone. This trend is slowly catching up and is very likely to be one of the widely used methods in screening profiles by the Hiring Manager in the next few years. Candidates are ensuring they are unique in the way they are presenting themselves to the Recruiters through Video Profile and Hiring Managers are equally using Video Screening feature to assess a candidate's suitability and scores based on the responses supplied to the interview questions.

4.13 Video Conference For Interview – Gone are the days when the Recruiters used to decide for travel of the interview candidates to the location where the candidate should be interviewed. It has become a virtual world now where the candidates can reach out to the nearest office or video conference facility in the city where the candidate is available. Other advanced means which are widely being accepted and used in the industry are Video Calling features on Mobile Phones or Skype calling facility. In allthese cases, the candidate is available to appear for a face to face interaction with the interviewer which helps the interview panel take a good judgement of body language, confidence levels and response behavior during the interviews. This facility is now being used by many corporate organizations which are saving administrative time and huge costs which otherwise would have been spent on the travel and accommodation arrangements of the candidates.

Conclusion

There is no doubt openly accepting and acknowledging the fact that technological advancement has provided with several options to the HRM Industry to address the hiring needs. Hiring Managers are also relying on such modern-day methods, tools and techniques which is addressing the hiring needs and requirements. Digitization or Digitalization has transformed the way businesses now operate. Business Leaders, Managers and Hiring Teams are utilizing these scientific methods in day to day operations, this change is also generating desired results and output and will continue in the long run. The bigger question however will be to ask if the industry is trending to saturation levels and will there be even more newer and customized tools that can be put to practical use and if yes, it is for HR Business Leaders to start investing in HRM Staff by making sure they are well trained to handle such change to stand tougher and more competitive in the years to come.

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Appendix

I. Respondents considering Digital HR as important

Figure 1. Digital HR: Percentage of respondents rating this trend "important" or "very important"
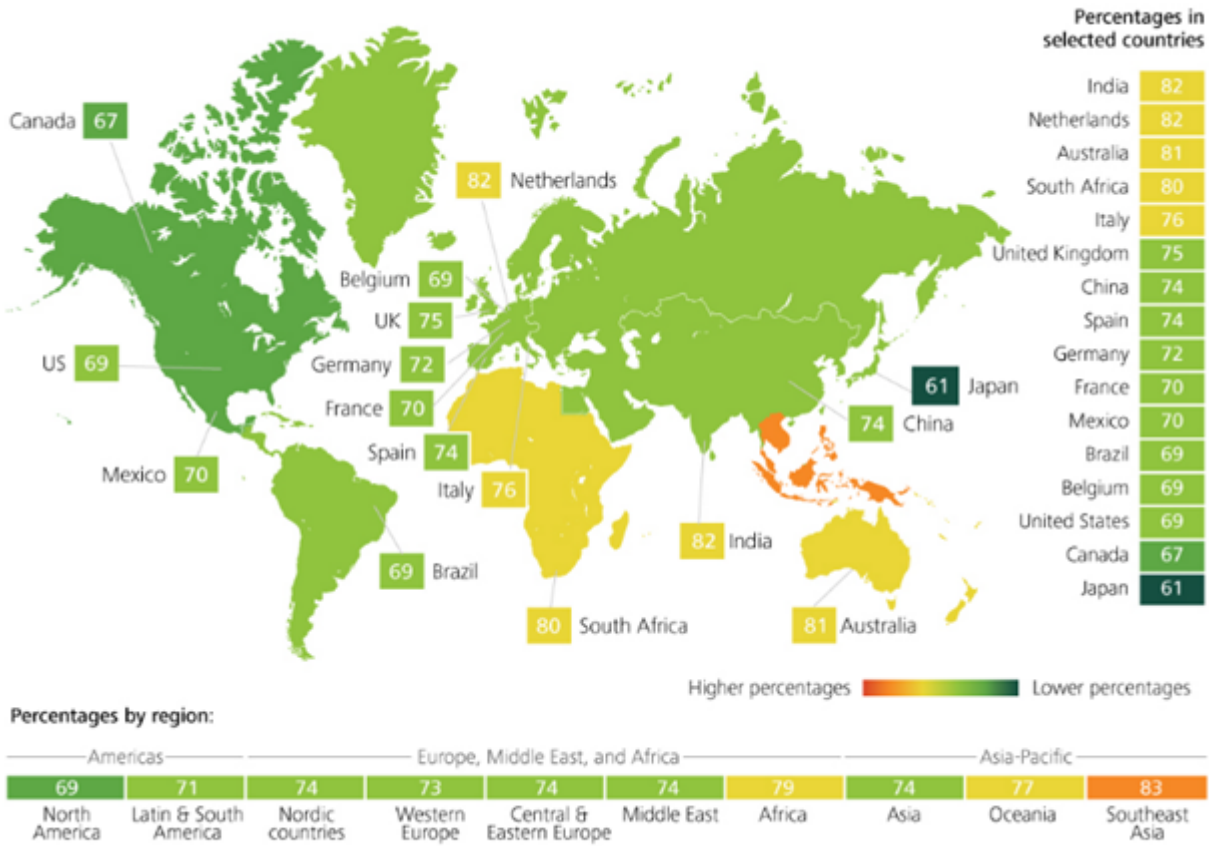
Graphic: Deloitte University Press | DUPress.com

II. Respondents using Application Tracking System

presented by ONGIG
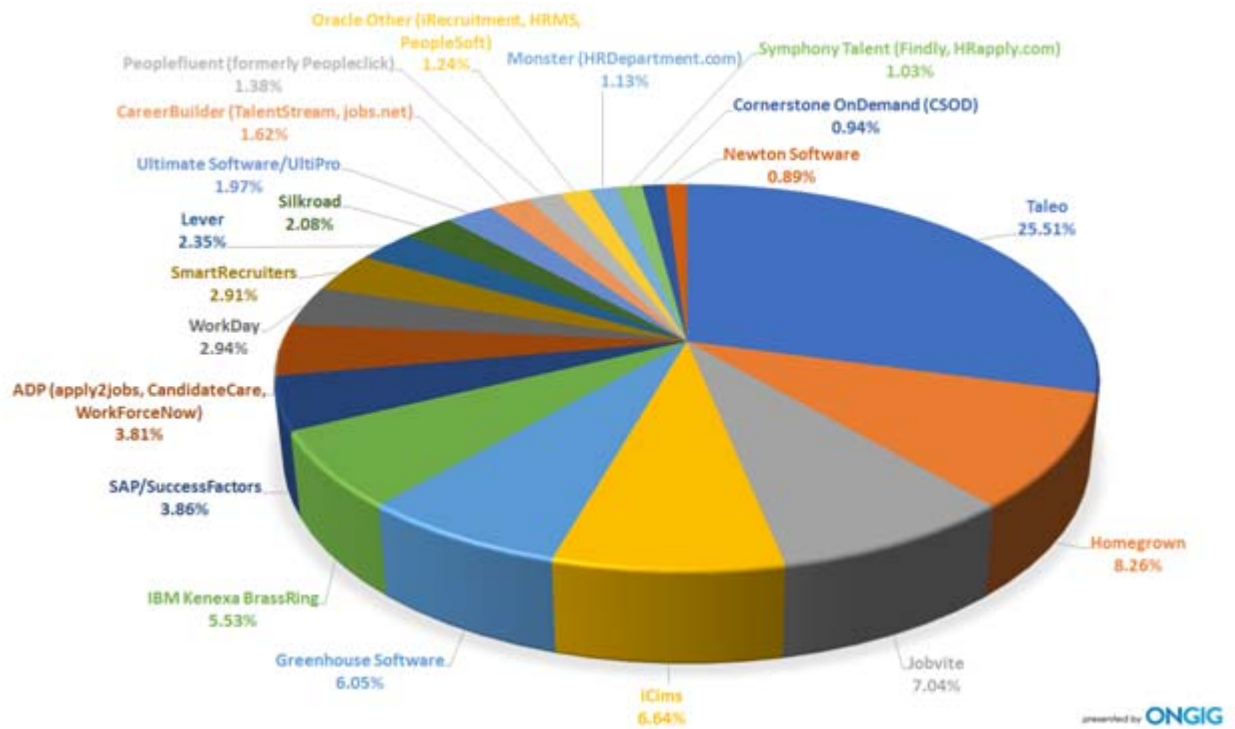
III. Jan 2017 stats of mobile internet users
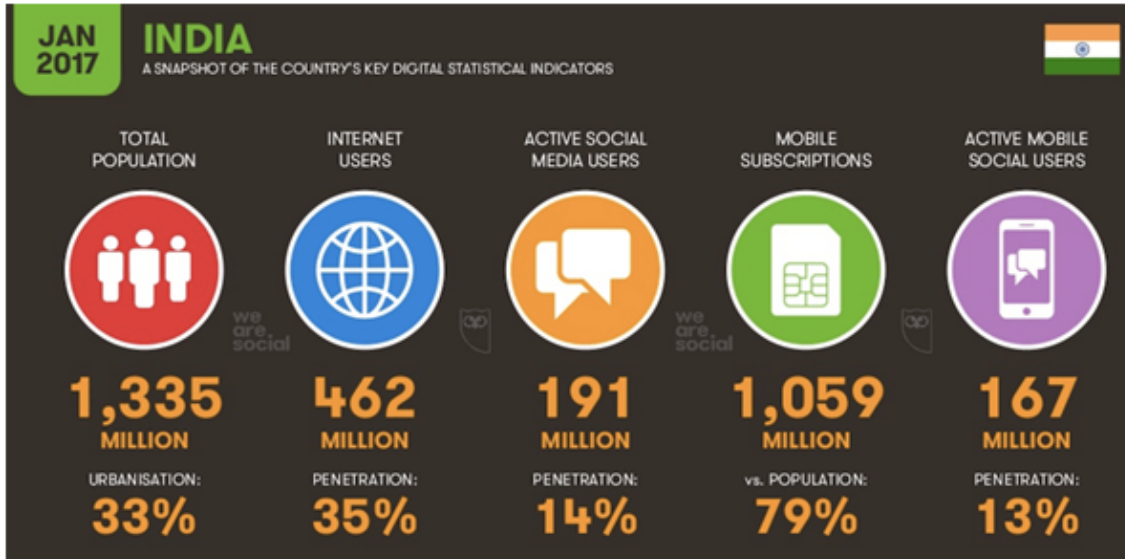
IV. Trends showing mobile users growth 2013 to 2019
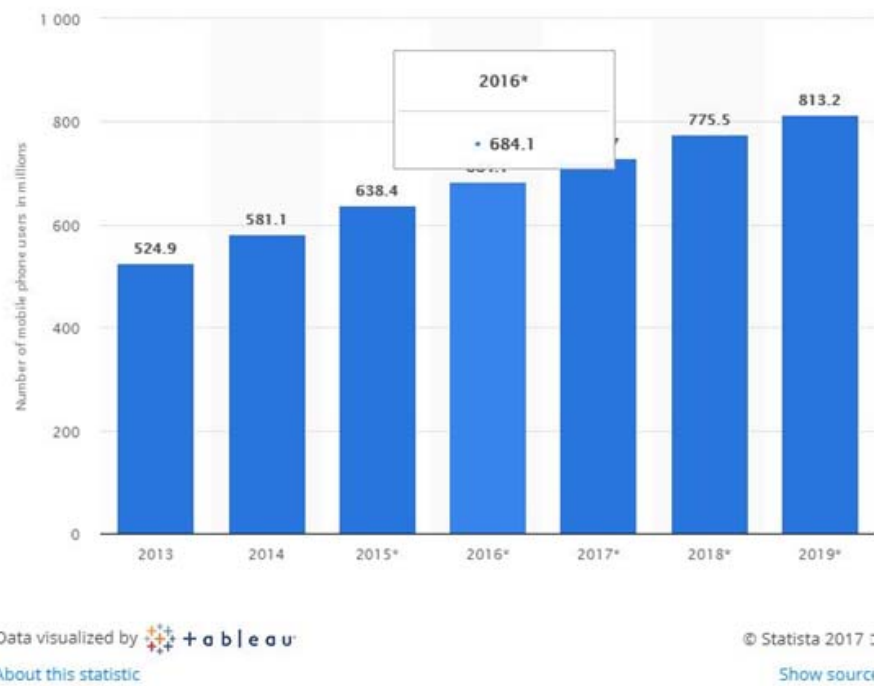
V. Social media recruitment statistics

Career Aspirations of Generation Y Hospitality Management Graduating Students: A Case Study with Reference to the Students of Apeejay Institute of Hospitality, Navi Mumbai

Bhuvan G.M.* & Shirish Bokde*

Abstract

Hospitality Management Education has gained prominence over the last two decades. Today, thousands of students are graduating from the hospitality institutes. These students are born post 1981 and they are known as Generation Y or Millennials. Their aspirations and way of living is different from their previous generations. Their career aspirations are very high. They aspire to be successful their life and career in a short time. Psychologists are of the opinion that generation Y aspire to achieve quick success. According to PWC Business Report, the best are hard to find and difficult to retain. They have become a new challenge to organizations and they look for quick career progression, work –life balance, flexibility in worCareer Aspirations of Generation Y Hospitality Management Graduating Students: A Case Study with Reference.... k, engaging work environment and love for travel.

In-depth literature review throws light on aspirations of Generation Y in India and in other countries. Career aspirations scale –Revised developed by Gregor and O'Brien, 2015 was administered using CASQ (Computerized Self-Administered Questionnaire) method with 44 respondents. Leadership Aspirations, Achievement Aspirations and Educational Aspirations were studied. Educational Aspirations scores was found to be the lowest in comparison to Leadership and Achievement Aspirations.

Key words: *Generation Y, Hospitality Industry, Millennials, Career Aspirations, Leadership Aspirations, Achievement Aspirations, Educational Aspirations, Internship Experiences*

Introduction

Hospitality Management has gained as a popular as a career option and many students are opting for hospitality courses. Currently, many universities and institutes in India are offering three year and four year degree programme in hospitality affiliated to universities and regulated by the UGC, AICTE and NCHMCT.

The University of Mumbai offers 3 year BSc Programme in Hospitality Studies.Apeejay Institute of Hospitality, established in 2007, under the aegis of Apeejay Education Trust, offers 3 year BSc programme in Hospitality studies with an annual intake of 60 students.

Career Aspirations of Generation Y* students, born post 1981 possess a varied career aspirations. The Generation Y are also called as the Millennials a term coined by William Strauss and Neil Howe.

*Generation Y defined as those born post 1981.

Generational Shifts –An Overview

According to GyanNagpal" People born between 1922 to 1945 are referred as the 'silent generation'. They were strong, disciplined and stable, they lived through the Great Depression, fought second world war and rebuilt the post war economies.

They were followed by baby boomers born between 1946 to 1964.Members of this generation control both Government and Industry in the western world today. Their median age is now in the mid –fifties and have started retiring in the large numbers.

The next Generation is the Generation X ,born between 1965-1980, also known as the MTV Generation are known to be flexible and self-serving, with a deep distrust of authority. Next came the Generation Y, born post 1981 are known to be the internet generation." Talent Economics (2013)

Generation Y, the Right Now Generation

The Generation Y final year students at Apeejay Institute of Hospitality, Navi Mumbai are now in the median age of 21 and would be joining the hospitality workforce in the next 6 months. They are highly aspirational and most of them have secured employment through the campus interviews facilitated by the institute.

* Apeejay Insitute of Hospitality, CBD, Belapur, Navi Mumbai, Maharashtra

The Generation Y,born between1981 to 2000 and after have a different aspirations compared to their predecessors. Psychologists are of the opinion that Generation Y aspire quick success and they lack patience. They are adventurous in nature and experience seekers. They focus on travel and want to become an entrepreneur. They invest more on lifestyle and believe in renting and shared economy. Economic Times,2016)

The work place should offer a good social environment, recreation, praise and recognition. (Saxena Parul and Jain Rajiv ,2012)

Generation Y do not prefer to work for a single employer for long and the focus was on the work-life balance. They appreciate friendly work environment based on partnership and trust.(Izabela, Stanczyk, AnetaPieczka, 2016)

In the year 2011, PWC, a business consulting company conducted a survey covering 4000 plus graduates across 75 countries in 2011. Millenials born between 1980-2000 form 25% of workforce in USA and over half the Indian population. By 2020, Millenials will constitute 50% of workforce in this world. The CEO's greatest challenge is to attract and retain the workforce. Millenials are tech savvy and this skill sets them apart. They possess a great affinity to the virtual and digital world and are less hierarchal .They desire fast growth , seek different career options and look for feedback from their superiors. Being quick learners and move quickly upwards and leave quickly if their expectations are not met. They value employer brand as a consumer brand. Millenials are expected to work for 6 or more employers in their career. They are on lookout for good job offers and very few are expected to stay and work for one employer for long.(PWC business report,2011).

Hospitality Graduates possessed higher competencies compared to non -hospitality graduates.(Peter & Ricci ,2010)

Hospitality Graduates aspiring to join the industry chose hospitality education as they want to work in this industry. They perceived that Hospitality is a way of life to them.The industry offers international career options and also work-life balance. Psychological Contract violation leads to unmet expectations and results in attrition.(Blomme, R., Van Rheede, A, etal (2009)

Most valued factors for students choosing careers in hospitality in Korea are Interesting Work Environment followed by benefits. Promotion and growth opportunities was also an important factor. Salary did not feature in the most prominent factor.(Kyungmi, K., Hallab, Z., &Hyung-Ryong, L,2009).

Graduates aspire to work in hotels as it provides global career opportunity and also provides scope for self-development. Also glamour of the industry attract young graduates. (Dhillon Parminder,2016)

Extroversion of students has significance correlation with choosing hospitality as a career option.(Teng, Chih-Ching, 2008)

The satisfaction levels of students during the hospitality course is an important factor that affects job preferences.(Manhas Parikshat &Dogra Jeet ,2011)

Influence of Internship on the Career Aspirations

Graduating students of Apeejay Institute of Hospitality have undergone 22 weeks of internship with reputed hotels in India. Based on the research, it is evident that internship experience has an influence on the career aspirations and decision making.

Perceptions towards joining Hotel Industry changes after the internship training.78% of students have changed their attitude towards the industry. Only 46% are interested to join the hotel industry. n = 74.Students are keen to work in the core departments of a hotel. Also students carry negative opinion towards promotions and growth in hotels. Students have given average rating for salary, respect for hotel jobs and job security .Opportunity to meet new people have been perceived positively. (Pol Rajeshree, Patil Hemraj,2016)

Final year students have negative perception towards the hotel industry after undergoing their internship training in hotels. However students have certain expectations from the industry such as securing a good job in international hotel chains, good career path and perks. Most students aspired to be employed as management trainee. Hotel management degree holders felt that they are over qualified to work in Housekeeping department of a hotel. The students also aspired to reach the middle management & senior management positions within 5 years of joining the industry. Also students were interested to become self-employed after 10 years in the industry. The students have given their opinion about low salary in the industry and long working hours. The students are of the opinion that work experience is more vital than possessing the hotel management degree.(Diwanji Sameer ,2015)

Employa Bility Skills

According to National Employability Report only 6% to 18% students are employable in the hotel industry. The report is based on 3000 sample for 120 hotel management institutes in India. Students lack the English language skills which is the preferred language of communication. Females are more employable compared to men. However the female ratio is less compared to the men. Employability of students from IHM is more than non IHM students. Non IHM consists of almost 50% of the manpower which the recruiters generally ignore.(Economic Times ,2012).

The study found that employability skills were lower than expected. Students lacked confidence for core employability

and specific employability. Students lacked in the areas of human resources management, administration, marketing, team building, finance, costing and negotiation skills. Hospitality education should focus on skills that make the students competitive employees to meet the future requirements of the business. (Wang Y & Tsai Chen 2014).

Enhancement of skills, competencies, personal attributes, knowledge and self-confidence, students become more employable and likely to be more successful and contribute to the society and the economy.(Spowart, J,2011)

Expectations From the Hospitality Industry

According to Mr.Harish Kulkarni,Talent and Culture Manager of Novotel, Pune, Accor Hotels "Managing Generation Y is a challenging game. Gen Y is a generation who think in a really different way, the positive outlook here is that they do not shy away, ready to accept challenges, ready to explore and have hunger to learn. They are a source of abundant energy which is waiting to be channelized. They are extremely advanced in use of technology and look for options of use of technology in every aspect. Areas to improve for this Generation is no patience at all, need everything at the click of a button and cannot wait. Second thing about this generation is they lack respect, they do not respect the experience and guidance given by their senior colleagues. It is a two way sword and we as elder colleagues have the responsibility to walk on that razors edge."

In the words of Mr.Vinaayak Kamble ,Human Resources Manager, Four Points by Sheraton, Navi Mumbai ''When we talk about the Gen Y generation, we know that they are smart, intelligent and forward thinking. Since they have been exposed to technology at an early state of their life they tend to be more techno savvy and fast in their thinking.

Generation Y generation's career aspirations and expectation are quit high and demanding. They would want things as of yesterday. They want to take up careers which are highly progressive and which will fetch high returns rapidly and for that they are ready to give in their hundred percent.

Generation Y generation who want to enter the hospitality sector are clear about the organizations that they want to work with. All those who top the grades go in for bigger brands either in the Hospitality or in allied services. It's all about their liking towards the industry as they have a varied choices. It's very important for the Generation Y generation to have a goal in life. There should be a career vision in mind with balance of maturity, patience and willingness to put in the hard work. They need to be mentored and given the basic knowledge of where the path leads if they choose any and let them decide on what's best for them"

The hotel industry(n=45) expectations from hotel management students are good general knowledge ,working effectively in a team, willing to perform ,achieves high level of tasks besides the individual attributes which ranked the highest. Hotel managers think 'Personality ' is the most important attribute .However, hotel management professional degree qualification was not an important factor to work in hotels. Managers also expected high levels of commitment from young hotel management graduates.78% of the hotel managers believed that internship is one of the most important and valued factor. Industry experience was given more weightage than a hotel management degree by the hotel managers.(Jay kumar, FukeyLeena&Balasubramanian,2014)

Parental Aspirations influence Career Aspirations of Students

Parent's educational qualifications and occupational status have an impact on the career aspirations of the management students. Students of well qualified parents had higher career aspirations. Career expectations score increased in case of monthly employee's parents. Personal interest influenced career choices. However job security did not influence career choices. The important attribute that influenced career decision making was 'High respect in the society' .Career advancement factors that influenced were Having the job I love followed by owning a car and house and being free of debt (Radhika, C. &Ramkumar,S, 2016)

Analysis and InterPretation

Career aspirations of final year hospitality students pursuing 3 year degree programme in hospitality was studied. The number of respondents participated in the study were 44 . (n=44).

Career aspirations scale –Revised developed by Gregor and O'Brien, 2015 was administered using CASQ (Computerized Self-Administered Questionnaire) method. The scale is designed with 24 items to capture

Leadership Aspirations-8 items

Achievement Aspirations-8 items

Educational Aspirations-8 items

Leadership Aspirations and Achievement Aspirations had the higher mean score of 28 out of 32 compared to Educational Aspirations. The mean score of Educational Aspirations was 24 out of 32.

Out of 44 respondents, 63.64% students have higher Leadership Aspirations and 68.19% have Achievement Aspirations. The Educational Aspiration is only 18.18%.The range considered is between28-32 for all the three aspirations. Out of the 44 respondents, 27.2%(12) were girls and 72.72%(32) were boys.

	Factor-1-Leadership Aspirations	Factor-2-Achievement Aspirations	Factor-3-Educational Aspirations
Mean (Girls)	27.17	27.75	24.92
Mean (Boys)	28.38	27.47	23.09

a. The Leadership aspirations of boys is higher than that of girls.

b. The Achievement aspirations of both boys and girls is similar.

c. The Education aspirations of girls is higher than that of boys.

It is evident that students possess higher aspirations towards holding Leadership positions and possess higher Achievement aspirations. Being Hospitality Graduates, they aspire to work in the Managerial/ Executive position than working as an associate or entry level position. They also aspire to achieve success in a short time which is related to career progression, leadership positions, quick promotion and materialistic success. Educational Aspirations was found to be the lowest. They are not too keen to pursue higher education, update constantly through continuing education or attending training programmes.

Conclusion

Based on the study, it can be concluded that graduating students of Apeejay Institute of Hospitality, Navi Mumbai possess higher aspirations towards leadership and achievement and lowest towards education. It is important for various stakeholders to understand them. Hospitality employers can bring in changes in their human resources policy to attract the right talent and retain them. According to Gyan Nagpal "The Generation Y grew up with a broader world view with early exposure to the internet in the 1990s.They are more discerning about their personal ambition, extremely comfortable with diversity and much less hierarchical".(Talent Economics, 2013). Only 44 respondents participated in the research study. There is a scope for further research with higher sample size of hospitality graduating students across the country.

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Leadership Aspirations

S.No.	Name of the Student	Factor-1-Leadership Aspirations	Count	Percentage
	Respondent 1 … Respondent 44		1	2.27
			6	13.64
			1	2.27
			7	15.91
			12	27.27

It has been observed that 63.64% have very high leadership aspirations by taking into consideration the range between 28 and 32.

Educational Aspirations

S.No.	Name of the Student	Factor-3-Educational Aspirations	Count	
	Respondent 1 … Respondent 44		1	2.27
			4	9.09
			6	13.64
			2	4.55
			4	9.09
			3	6.82
			2	4.55
			4	9.09
			5	11.36
			1	2.27
			3	6.82
			1	2.27
			2	4.55
			1	2.27
			4	9.09
			1	2.27

It has been observed that 18.18% have very low educational aspirations by taking into consideration the range between 28 and 32.

Achievement Aspirations

S.No.	Name of the Student	Factor-2-Achievement Aspirations	Count	Percentage
1	Respondent 1	18	1	2.27
2	Respondent 2	19		
3	Respondent 3	20	1	2.27
4	Respondent 4	20		
5	Respondent 5	20		
6	Respondent 6	22		
7	Respondent 7	22		
8	Respondent 8	23	3	6.82
9	Respondent 9	24		
10	Respondent 10	24		
11	Respondent 11	25		
12	Respondent 12	26	2	4.55
13	Respondent 13	26		
14	Respondent 14	27		
15	Respondent 15	28	1	2.27
16	Respondent 16	28		
17	Respondent 17	28		
18	Respondent 18	28		
19	Respondent 19	28		
20	Respondent 20	28		
21	Respondent 21	29	6	13.64
22	Respondent 22	29		
23	Respondent 23	29		
24	Respondent 24	29		
25	Respondent 25	29		
26	Respondent 26	29		
27	Respondent 27	30		
28	Respondent 28	30		
29	Respondent 29	30	8	18.18
30	Respondent 30	30		
31	Respondent 31	30		
32	Respondent 32	30		
33	Respondent 33	30		
34	Respondent 34	30		
35	Respondent 35	31		
36	Respondent 36	31		
37	Respondent 37	31		
38	Respondent 38	31		
39	Respondent 39	31		
40	Respondent 40	31		
41	Respondent 41	32		
42	Respondent 42	32		
43	Respondent 43	32		
44	Respondent 44	32		

It has been observed that 68.19% have very high achievement aspirations by taking into consideration the range between 28 and 32.

S.No.	Name of the Student	Factor-1-Leadership Aspiration	Factor-2-Achievement Aspirations	Factor-3-Educational Aspirations
1	Respondent 1	24	20	18
2	Respondent 2	24	28	19
3	Respondent 3	32	32	32
4	Respondent 4	23	31	25
5	Respondent 5		29	22
6	Respondent 6	29	29	25
7	Respondent 7	29	29	26
8	Respondent 8	27	31	27
9	Respondent 9	30	31	22
10	Respondent 10	31	31	24
11	Respondent 11	32	32	31
12	Respondent 12	29	24	25
13	Respondent 13	32	32	27
14	Respondent 14	24	22	20
15	Respondent 15	23	27	24
16	Respondent 16	30	31	25
17	Respondent 17	24	20	18
18	Respondent 18	29	30	31
19	Respondent 19	29	30	31
20	Respondent 20	29	30	31
21	Respondent 21	27	22	23
22	Respondent 22		24	18
23	Respondent 23		19	16
24	Respondent 24	28	32	22
25	Respondent 25	28	26	20
26	Respondent 26	23	30	25
27	Respondent 27	20	23	27
28	Respondent 28	32	28	19
29	Respondent 29	28	30	30
30	Respondent 30	31	25	23
31	Respondent 31	30	18	18
32	Respondent 32	32	28	19
33	Respondent 33	32	30	21
34	Respondent 34	32	28	19
35	Respondent 35	32	31	28
36	Respondent 36	32	30	21
37	Respondent 37	32	28	19
38	Respondent 38	32	28	19
39	Respondent 39	32	30	21
40	Respondent 40	28	29	23
41	Respondent 41	26	26	23
42	Respondent 42	23	20	21
43	Respondent 43	23	29	24
44	Respondent 44	29	29	24
	Mean	**28**	**28**	**24**

It has been observed that the mean score of Leadership and Achievement aspirations is high at 28 and the mean score of educational aspiration is low at 24.

Career Aspiration Scale

Name of the Respond [   ]

Year of the BSc [Hospitality Stud [**Final year**   ]

In the space next to the statements below please circle a number from "0" (not at all true of me) to "4" (very true of me). If the statement does not apply, circle "0". Please be completely honest. Your answers are entirely confidential and will be useful only if they accurately describe you.

S.No	Question	Answers	Coding	Recoded
1	I hope to become a leader in my career field.	3	N	3
2	I do not plan to devote energy to getting promoted to a leadership position in the organization or business in which I am working.	3	R	1
3	I want to be among the very best in my field.	4	N	4
4	Becoming a leader in my job is not at all important to me.	4	R	0
5	When I am established in my career, I would like to manage other employees.	3	N	3
6	I plan to reach the highest level of education in my field.	2	N	2
7	I want to have responsibility for the future direction of my organization or business.	3	N	3
8	I want my work to have a lasting impact on my field.	2	N	2
9	I aspire to have my contributions at work recognized by my employe	2	N	2
10	I will pursue additional training in my occupational area of interest.	2	N	2
11	I will always be knowledgeable about recent advances in my field.	2	N	2
12	Attaining leadership status in my career is not that important to me.	3	R	1
13	Being outstanding at what I do at work is very important to me.	2	N	2
14	I know I will work to remain current regarding knowledge in my field.	0	N	0
15	I hope to move up to a leadership position in my organization or bus	2	N	2
16	I will attend conferences annually to advance my knowledge.	2	N	2
17	I know that I will be recognized for my accomplishments in my field	2	N	2
18	Even if not required, I would take continuing education courses to become more knowledgeable.	3	N	3
19	I would pursue an advanced education program to gain specialized knowledge in my field.	1	N	1
20	Achieving in my career is not at all important to me.	0	R	4
21	I plan to obtain many promotions in my organization or business.	2	N	2
22	Being one of the best in my field is not important to me.	1	R	3
23	Every year, I will prioritize involvement in continuing education to advance my career.	4	N	4
24	I plan to rise to the top leadership position of my organization or bu	4	N	4

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Role of E-books on Enhancing Mass Education

Supriya Maske,* Arvind Kumar Gadthey** & Dr. Kirti Gupta***

Abstract

The world is trending Digital way, it is surfing high and fast with the Digital wave. Digitization has brought in a remarkablechange across all industries and sectors. Academics and Education sector is no exception, there has been a mass alteration in how current generation is using Digitally published information to fulfill their day to day educational requirements. Access to internet connected smartphones has made information available so easily that students these days prefer surfing the internet rather than spending time at the Library going through books. This is the age of digital information and digital books which also referred to as Electronic Books and in short called as e-Books. Through this paper an attempt has been made to understand Digital Publishing methods with special reference drawn to e-Books, their usage trend, benefits, disadvantages. The various types of hardware and software components largely being accepted and used with examples have been discussed in this paper. Drawing a close connect with the topic of e-Books and their usage trend - statistics covering countries worldwide and India have been shared. Details like revenues and users of e-Books starting from year 2016 and the likely estimates till 2022 have been discussed. A summary of e-Books usage trend growth with specific reference to Indian Education System roadblocks faced, challenges and limitations have been shared as well. e-Books have come a long way in changing the way students got information and education prior to 1990s. Our education system is continuously evolving with several advancements in hardware and software components each passing day which is significantly contributing to the way e-Books are perceived, understood and usedby our students and teachers' community. Taking a cue from the statistics on the likely trend till 2022, e-books are going to become more popular and there is a great scope and potential in changing the way education will be imparted to students in the future. In conclusion we discuss the existing rules, policies and standards required for handling e-Books as a mass medium for education and our preparedness to make it a big success.

Keywords: *Digital Wave, Digitization, Digital Publishing, E-Books*

1. Introduction

Ever since human life evolved, writing and reading has had a very special and indispensable use and practice. Since times immemorial with human civilizations developing, the methods of writing or carvings in the form or symbols and special characters advanced to next levels passing through changes in stone age, bronze age, iron age to medieval age and modern age. Right from the stage of carving symbols on the stones, writing on leaflets, inking on cloth pieces to use of paper, humans have shown significant development in writing and reading aspects.

With modern age hi-tech technology tools, devices and methods being easily available, there is no denial that humans have come a very long way in showing advancement in reading and writing aspects to unimaginable levels. The usage of paper is being cutdown and instead the world is taking a digital approach in writing, publishing and reading information, content, matter, material in digital format. There is extensive use of digital way of handling printed contents now with reduction in printing of physical paper based copies of books and this is getting replaced with electronic or digital form of publishing the book for users.

2. Digital Publishing

The most popular Digital Publishing methods are – Digital Magazines& Newspapers, Digital e-Books, Digital online libraries, coursesand training material.

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2.1 Digital Magazines & Newspapers

Newspapers or Magazines content made available in electronic form online or in a stored file format for future read and reference is categorized as Digital Magazines & Newspapers. These are just like a printed magazine or newspapers often available online on webpages or accessible by way of soft copy in PDF (Portable Document Format) file or picture or any other soft copy version readable on electronic devices. The matter and content from the newspapers and magazines is often developed in such a way that it fits the electronic devices screen for user friendly view.

2.2 E-Books

Books published, stored and accessed in electronic form are called as Electronic Books or in short referred to as e-Books. Electronic Book is information, education content, text, images, data and statistics created and published to be made available in digital format and is stored with the purpose of future reference and use. In simple terms e-Book is an electronic format of a printed book that can be accessed on a computer, laptop, mobile, tablet or any other electronic device called as Electronic-Reader (e-Reader). There are several e-Reader devices in the market that offer the ease and address the e-Books compatibility aspect for comfortable view of e-Book contents. The use of e-Books is turning out to be the best alternative to our traditional methods of accessing printed books. Modern day e-Books are so advanced that they have new features like audio, video contents that can be accessed and viewed by users.

2.3 Digital Libraries, Trainings Content, Online Courses

A Digital Library is consolidation of tons of information or material or content in digitally published format and accessible through online tools or applications or web pages or web content. It contains all sections, digital collections, or matter consolidated for easy and quick search and identification using the key word search function or subjects search based on different categories. Important information in the form or text, images, audio and video content consolidated and sequenced for systematic use and reference can be used for trainings or tutorials or educational courses online which also get consolidated under the Digital Libraries category in this modern era of Digital Publishing.

3. Components of E-Book

The components of e-Books are classified into Hardware and Software. Hardware is the physical e-Book Readers also called e-Readers or e-Devices. There are several hardware options available in the market to access e-Books, widely used options available are PDAs (Personal Digital Assistants), Desktops, Laptops, Mobile Phones, Tablets, Amazon's Kindle etc. All these devices are designed to accept e-Books content in desired format and are tuned, auto-adjusted for viewer or user-friendly access. The format of e-Books comes in a whole lot of variety, it ranges from simple text files to HTML (Hyper Text Markup Language) and the most widely used accepted form of Adobes PDF. Software component of e-Books hold all the information, matter, content and material in the form of text, images, audio and video files digitally.

4. Key Statistics on E-Books from Statista Inc.

'Statista' is one of the leading statistics companies on the internet. With a team of over 450 statisticians, database experts, analysts, and editors, Statista provides users with an innovative and intuitive tool for researching quantitative data, statistics and related information.

4.1 Highlights Worldwide (Appendix I)

- Revenue in the "eBook" segment amounts to US$11,862m in 2018.
- Revenue is expected to show an annual growth rate (CAGR 2018-2022) of 3.3 % resulting in a market volume of US$13,485m in 2022.
- User penetration is at 10.5 % in 2018 and is expected to hit 11.8 % in 2022.
- The average revenue per user (ARPU) currently amounts to US$21.94.
- From a global comparison perspective it is shown that most revenue is generated in the United States (US$5,305m in 2018).

4.2 Highlights India (Appendix II)

- Revenue in the "eBook" segment amounts to US$125m in 2018.
- Revenue is expected to show an annual growth rate (CAGR 2018-2022) of 14.3 % resulting in a market volume of US$214m in 2022.
- User penetration is at 2.9 % in 2018 and is expected to hit 4.5 % in 2022.
- The average revenue per user (ARPU) currently amounts to US$3.15.

5. Role of E-Books in Mass Education

With rapid scale advancement in use of Smartphones, Tablets and widely used Amazon Kindle, e-Readers, the use of e-Books culture is fast spreading across to major sections of the society especially covering the urban population. The rural sector however is yet to catch up with the level of speed and advancement that urban sector has witnessed and is experiencing today. From the key statistics highlighted in section 4 above, it is clear that use of e-Books is only going to increase not just worldwide but in India as well.

In the present-day market, there are several options available for Students and Teachers to choose from for selecting e-Books and e-Devices or e-Readers. Almost every school in the urban sector has access or provided access to such facilities with the help of Computers, Laptops, Electronic Presentation Boards. Teaching is taking a new shape these days where technology meets the knowledge dissemination concepts and resulting in quick and easy exchange of information. Students now-a-days are more tech savvy and would prefer electronic devices over the traditional methods of digging deep in the printed books for information and knowledge. Students and Teachers can consolidate all chapters and reading material content in e-book format circulate it for wider reach and use.

Use of e-Books is gaining popularity due to the following reasons:

Appeal & Advanced Tech Features

Student community these days is tech savvy, understand the use of Computers, Smartphones and other electronic devices very well. They are continuously engaged in exploring new ways of using electronic devices. The excitement levels to touch, feel and operate new and sophisticated devices does not require much explanation. Students are so well versed with use of tech features and options on electronic devices that they go the extent of exploring and trying all possible features in an electronic device. The flexibility and usage features prompt all users to consider new age devices far ahead in comparison with printed books. Teachers and Students have started are getting inclined to use of technology devices in education. Most of the education in several schools and colleges is happening with the help of e-Devices and e-Readers. Not to mention the pictorial, high-definition (HD) graphics usage, audio-visual concepts are more appealing to the Teachers and Students. The use of e-Books is also on the pace is only expected to rise and pickup more pace.

Innovative Way of Learning

Anything new, innovative and different in comparison to traditional ways of learning is always accepted much quicker, is successful and practiced widely. Educational institutions these days are looking out actively for innovative options in imparting quality education to the students. It has become a competitive world out there with institutions trying to continuously work on new ideas and innovative methods to stay ahead in the race to brand themselves as patrons of innovative concepts in learning. Classrooms are no more the traditional learning centers where Teachers share information from printed books and make some illustrations on the blackboard. Classrooms are now virtual reality and graphics demonstration rooms with on-screen presentations, HD illustrations with interactive ways of learning and understanding scenarios of a subject for discussion and study. To catch up with the new generation expectations, Teachers are acquainting themselves with such new ways of learning. Schools and Colleges are creating e-Library, e-Books concepts for quick and easy access of study content and material to students. SharePoint, electronic folders and directories are created for learning which provide changes, updates and quick edits to the study material giving real time view of updated contents.

6. Advantages of Using E-Books in Education

Cost Saves

Books are used year after year and in case of curriculum or topic changes, they are discarded as old and replaced with new books which results in sheer wastage of old printed books. It is estimated that e-Books if considered and used as an alternative option in place of printed books can saves costs up to 60% less than print textbooks.

Environment Protection:

We all are well aware that paper comes from trees –cutting trees, rapid deforestation is disturbing the ecological balance and resulting in global warming. Use of e-Books nearly eliminates the massive demand of paper and the pressure on paper manufacturing units. This thought process and if understood and precedence given to new digital methods and practices by writers, publishers, students and educational institutions can help in contributing to achieving CSR goals of less pollution, less wastagefrom paper wastage and printing ink and will help in protecting environment.

No Space Constraints

With e-Books use, several hundreds of printed books content can be stored in a soft copy format on e-Readers or electronic devices. Depending on the use and requirement, these can be copied in soft copy format and stored as emails or stored on computer drives or uploaded to Cloud environment for easy download and access at a later point of time. It is said that a 4 GB Amazon Kindle can store matter of up to 3000 printed books. Imagine handling 3000 physical print books vs. hand held Kindle device with the same information stored.

Ease & Convenience in Accessing & Handling

The matter or content in e-Books can be updated as and when there is change or new data to be added and all such updates can be made accessing the soft copy and distributing the updated version. There is great level of ease, comfort and convenience in accessing and handling e-Books anytime, anywhere. The e-Reader devices or the e-Books content can be saved, and password protected which means there is no worry of data getting lost or stolen and the best part is quick, easy and most importantly secure access of information. According to a study **(Appendix III)** 24 city schools from various different boards covering ICSE, Kendriya Vidyalayas and Stateaided schools were surveyed, and the bags of 1,000 children were weighed - it is proved that the average weight of a school bag depending on the type of school (aided, un-aided) starts at 3.7 Kgs and got to a maximum of up to 8.3 Kgs. Imagine the amount of stress and weight burden we add on to our students which such heavy bag load which can be removed through ease of e-Books and e-learning.

Sharing and Re-Usability

Once a particular e-Book is used by someone the same can be used or utilized by any other person. The material can be re-used or shared further with others from the library websites. Students can download content as and when required, share further or re-use the content in future.

7. Is our Education System Ready for E-Books?

Cost of e-Devices or e-Readers:

Apart from Desktop and Laptops, e-Readers like tablets or Amazon Kindle cost anywhere from INR 5000 to 22,000 and there are several other brands of e-Readers available in the market which are not less than INR 4000 if one has to buy a decent one with required features. The cost of such devices still makes it less affordable for a large section of middle class population in India.

Limited Scope and Spread

Although the pricing is low compared to printed books, e-Books do not cover all topics and chapters that students otherwise would find in a printed book. Students find it a waste of money especially considering the point that not all textbooks or books are available as e-books. Many students find it difficult to afford buying several e-Books and prefer buying printed books. Several Publishers do not cover all syllabus and curriculum through e-Books as most of them are not tuned to the new age changes so prefer to stick to the traditional methods of printed publications.

Infrastructure And Technology Limitations

While India and Indian education system is reaching new pinnacles by accepting technology and use of modern-day reading and writing methods, it is still a long way down the road with regards to infrastructure and technology issues. Major section of the urban class has access to better infrastructure and facilities but issues like limited Bandwidth, internet speed and limitation on number of users to access records or e-Books, connectivity aspects remain as open items to think through. Rural part of the student community is yet to catch up with the Urban class in terms of access to technology and good infrastructure, the access to e-Books for them is still a distant dream.

Heath Concerns

Many students still believe the traditional approach of holding a printed book in hand is more comfortable rather than taking the approach of straining eyes by looking at electronic devices which harm the eyes and cause several other health issues. So, here is a large section of students and parents which still believe that spending a lot of time on electronic devices will cause more harm in the long run than do good.

Conclusion

Technology continues to drive the change with e-Books Users base increasing but it is important to note that Indian Publishers are still reluctant in taking the e-Books approach, they are not aware of how it works and are more worried about the material being shared and used free of cost resulting in a big dent to their revenues. Education system is also very far from the concepts of e-Books, majority of the Teachers and Students still do not connect with the e-Books facility and the advantages it has in handling the new change also there are no pre-defined set of rules and standards that need to be followed or adhered in usage of e-Books. There is no governance and monitoring system with schools to embrace and accept this new change. On the other hand, Parents are worried and look at e-Devices or e-Readers mostly Smartphones as a overkill of students productive time leading the health issues. Government should also step up its efforts to support e-Books culture which in the current state seems to be unavailable. The switch or change to e-Books is an uphill climb which will require Governments attention along with partnership from Publishers and Teachers. Parents and Student community should pile on and partner with Government, Publishers and Teachers to ensure standards are set and proper governance is in place. Active participation and involvement from all sections and parties in Education system is required to make e-Books culture a big success in imparting education in India.

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Appendix

I. https://www.statista.com/outlook/213/100/ebook/worldwide

Revenue Growth
in percent

Reading Support
The "eBook" segment is expected to show a revenue growth of 4.3 % in 2019.

PNG Download   XLS Download

| Revenue | Revenue Growth |

Source: Statista, September 2017; Selected region only includes countries listed in the Digital Market Outlook.

Info

User
in millions

Reading Support
In the "eBook" segment, the number of users is expected to amount to 621.8m by 2022.

PNG Download   XLS Download

| User | Penetration Rate |

Source: Statista, September 2017; Selected region only includes countries listed in the Digital Market Outlook

Info

Penetration Rate
in percent

Reading Support
User penetration in the "eBook" segment is at 10.5 % in 2018.

PNG Download   XLS Download

| User | Penetration Rate |

Source: Statista, September 2017; Selected region only includes countries listed in the Digital Market Outlook

Info

Global Comparison - Revenue
in million US$ in 2018

Reading Support
With a market volume of US$5.305m in 2018, most revenue is generated in the United States.

PNG Download

| Global revenue | Global penetration |

Top Countries

United States	US$5,305.2m
Japan	US$1,294.4m
China	US$1,087.7m
United Kingdom	US$801.2m
Canada	US$468.6m

0   1,000   2,000   3,000   4,000   5,000   6,...

Source: Statista, September 2017; Selected region only includes countries listed in the Digital Market

Info

II. https://www.statista.com/outlook/213/119/ebook/india#

Highlights

🇮🇳 India

· Revenue in the "eBook" segment amounts to US$125m in 2018.

· Revenue is expected to show an annual growth rate (CAGR 2018-2022) of 14.3 % resulting in a market volume of US$214m in 2022.

· User penetration is at 2.9 % in 2018 and is expected to hit 4.5 % in 2022.

· The average revenue per user (ARPU) currently amounts to US$3.15.

· From a global comparison perspective it is shown that most revenue is generated in the United States (US$5,305m in 2018).
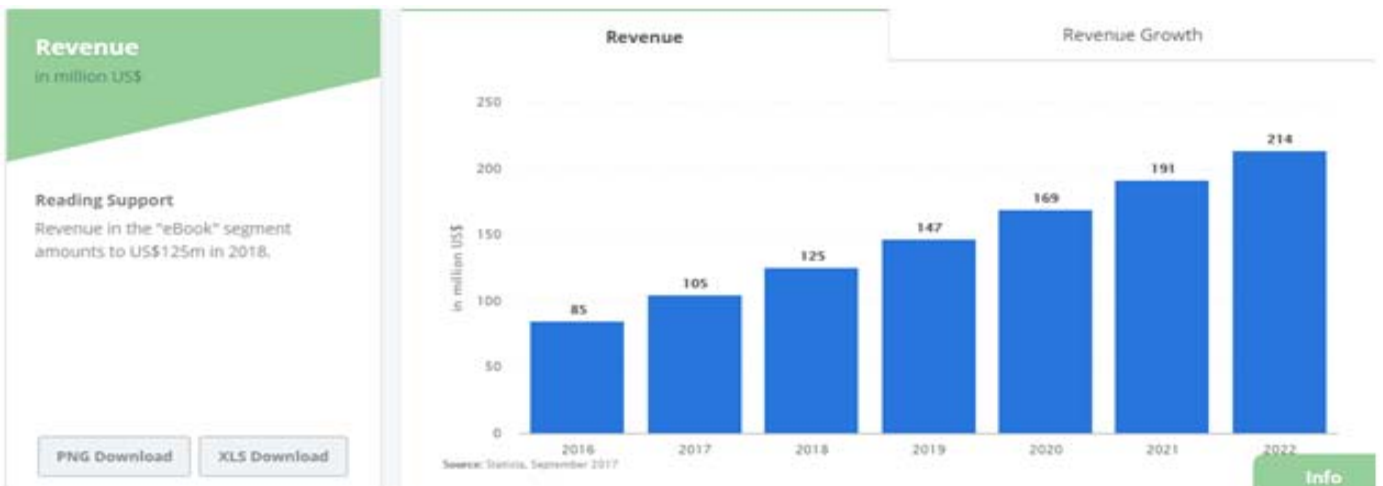
Revenue Growth
in percent

Reading Support
The "eBook" segment is expected to show a revenue growth of 17.1 % in 2019.

PNG Download   XLS Download
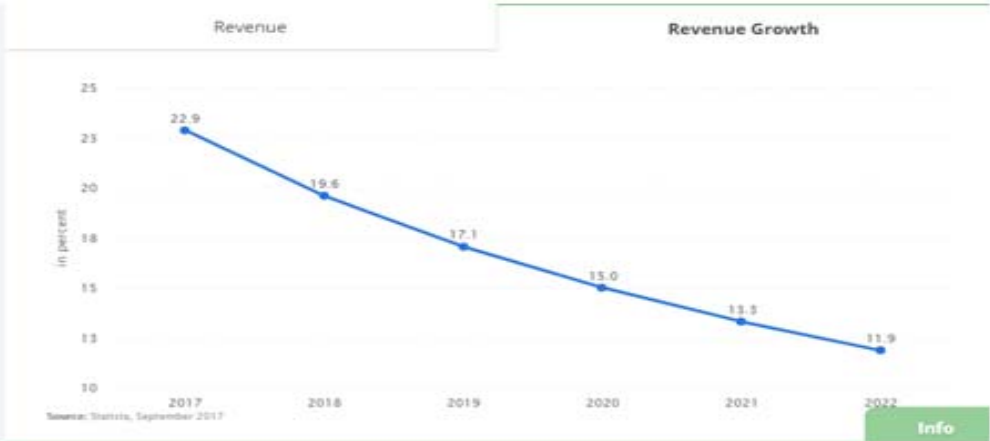
| Revenue | Revenue Growth |

Revenue Growth chart (in percent):
- 2017: 22.9
- 2018: 19.6
- 2019: 17.1
- 2020: 15.0
- 2021: 13.3
- 2022: 11.9

Source: Statista, September 2017

Info

User
in millions

Reading Support
In the "eBook" segment, the number of users is expected to amount to 64.2m by 2022.

PNG Download   XLS Download

| User | Penetration Rate |

User chart (in millions):
- 2016: 28.1
- 2017: 33.9
- 2018: 39.9
- 2019: 45.9
- 2020: 52.0
- 2021: 58.1
- 2022: 64.2

Source: Statista, September 2017

Info
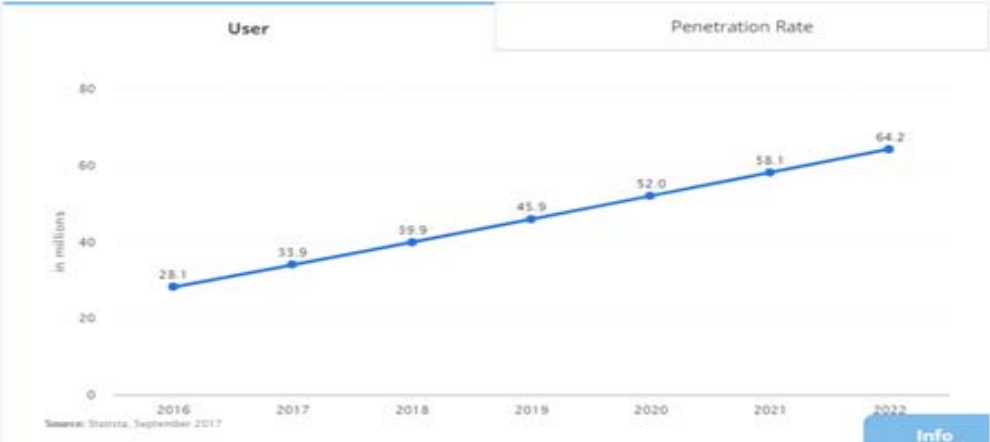
Penetration Rate
in percent

Reading Support
User penetration in the "eBook" segment is at 2.9 % in 2018.

PNG Download   XLS Download

| User | Penetration Rate |

Penetration Rate chart (in percent):
- 2016: 2.1
- 2017: 2.5
- 2018: 2.9
- 2019: 3.4
- 2020: 3.8
- 2021: 4.2
- 2022: 4.5

Source: Statista, September 2017

Info

Global Comparison - Revenue
in million US$ in 2018

Reading Support
With a market volume of US$5,305m in 2018, most revenue is generated in the United States.

PNG Download

| Global revenue | Global penetration |

Top Countries

United States	US$5,305.2m
Japan	US$1,294.4m
China	US$1,087.7m
United Kingdom	US$801.2m
Canada	US$468.6m
India	US$125.5m

0   1,000   2,000   3,000   4,000   5,000   6...

Source: Statista, September 2017 © Natural Earth

Info

Global Comparison - User Penetration
In percent in 2018

Reading Support
With a rate of 27.6 %, the user penetration in the "eBook" segment is highest in the United States.

PNG Download

Global revenue

Global penetration

Top Countries	
United States	27.6%
United Kingdom	20.2%
China	17.5%
Canada	16.4%
Hong Kong	14.7%
India	2.9%

Source: Statista, September 2017 © Natural Earth

Info

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Case Study of Sophia – The Humanoid Robot

. *Sujata A. Kumbhar* & Prof. Pratibha M. Deshmukh***

Abstract

As different robots are being developed, inventions of humanoid robots have given rise to new era of revolution. Humanoid robots have become manifestation, a tangible form of artificial intelligence. Now a day, robots are being highly practiced in various fields. In this paper, we are elaborating the case study of Sophia- the famous humanoid robot. Sophia is a latest humanoid robot with the most advanced creation of robotics. She can behave autonomously without being supervised and controlled by human to interact with people naturally. The way artificial intelligence programmed on this humanoid robots have given a new vision towards robotics for programmers and developers. A lot of time, money, effort can be saved through this advanced robotics in artificial intelligence. But to keep some severe things in safer side, the artificial intelligence may be restricted up to certain limit.

This paper has identified Sophia's strength and weaknesses. Nowadays Sophia is popular as humanoid robot but there is still need of improvement.

Keywords: *Robots, Humanoid Robots, Artificial Intelligence, Sophia, Programmers, Developers*

1. Introduction

1.1 What is Robotics?

Robotics is a kind of specialized engineering that involves the combination of mechanical engineering, electrical engineering,Computer science.Mostly it is said to be a branch of artificial intelligence which deals with study of design,its construction,operations performed on it and how it will be used in developing robots

Robots are being developed with the concept that they can do work such that difference between human work and robot's work cannot be differentiated.Even that robot can perform the difficult task that human cannot do easily in conditions leading to risks,improper output or where humans are unable to survive

Now a days, this field is growing rapidly as new technologies for developing robots are being invented. Robots are being highly used in various fields such as in house, hospitals, restaurants, industries, military defense, space, etc.

Robot Institute of America defines robot: "A robot is a programmable, multifunctional manipulator designed to move material, parts, tools or specialized devices through variable programmed notions for the performance of variety of tasks" [1].

1.2 Types of Robots

There are various types of robots distinguished by its characteristics and operations.

1. Stationary Robots

Generally, we all mean for stationary as the objects that do not change their position. But here, the stationary robots mean that while doing/performing operations, the robot's base does not move.

Stationary robots include the following [6]

- Cylindrical robot
- Cartesian/Rectilinear/ Gantry robots
- Polar/ Spherical robot
- SCARA
- Articulated (Armed) robots
- Parallel robots

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2. Wheeled Robots

Wheeled robots are the robots that move from one place to another using "wheels".

Wheeled robots include the following[6]:

- Single wheeled
- Two- wheeled
- Three wheeled
- Four wheeled
- Tracked wheeled
- Multi wheeled

3. Legged Robots

The legged robots are those robots which change their position using leg- shaped structure. Here, leg- shaped given to robots can be like human beings or types of animals.

Legged robots include the following[6]:

- Single legged
- Two legged (Bipedal Robots) (Humanoids)
- Three legged robots
- Quadruped Robots
- Six legged robots
- Multi numbered legged robots

4. Flying Robots

Flying robots are the robots that can maneuver and fly high on the air using structure like bird- wings, plane- like structure [6].

5. Swimming Robots

Swimming Robots are the robots that can float on water and swim under water like in sea and rivers [6].

The other types of Humanoid Robots are like Mobile Spherical Robots/Rolling Robotic Balls,Micro Robots,Nano Robots, Swarm robots- With multiple other small robots, Modular robots, Crawler robots, Hybrid robots also exists.

II. Humanoid Robots

A humanoid robot is a robot which has its overall look, characteristics, shape, structure which mirrors the human body. The designing of human robots is made such that they consists functional ability to work with various tools and environment. Humanoid robot duplicates the human structure as it constrains with a torso with a head, two hands and legs [7]. Though some structures of humanoid robot consists only partial parts of human body depending on the work it has to do. Some robots have their faces with eyes and mouth just to appear like human face. The humanoid robot that duplicates male gender is called "Androids" and the humanoid that duplicates female gender are called "Gynoids".

Humanoid robots are designed to behave autonomously, without being supervised and controlled by human to interact with people naturally. Humanoids are not designed just for specific need as a solution but to function at ease in various real- worlds environment like cluttered, noisy, crowdie workspace and do wide range of tasks [8].

III. Literature Review

3.1 Who is Sophia?

Sophia is a latest humanoid robot with the most advanced creation of robotics. The founder of Hanson Robotics, also the chief Executive Officer of the company, Dr. David Hanson created the humanoid 'Sophia'[2].

On April 19, 2015, Sophia the humanoid was been activated and was brought for the public appearance in March 2016 for the first time [3].

"Upending the Uncanny Valley" [2], elaborates that humanoids can be liked, instead of spreading the conception that something that fakes or duplicates human will give rise to revulsion amongst people,. He wrote, "We feel that for realistic robots to be appealing to people, robots should attain some level of integrated social responsibility and aesthetic refinement. Assimilation of social human in every possible detail could help us to make better understanding of social intelligence through both scientifically and artistically.

3.2 How Sophia Got Developed Her Brain

Chief scientist of Hanson Robotics and CTO Ben Goertzel said that Sophia is sophisticated mixture of software called chatbot software and robotics, to build some facetious response, it don't have that kind of human intelligence[4]. Rather than being like human, Sophia is much like user interface which can be coded and programmed so as to run differently in different conditions.

Generally the configuration done for Sophia's software can be divided into three parts:

3.2.1 Software Consists of Chatbot Application.

While interacting with people, she runs a dialogue system whenever required, where she can look towards people, observe what they talk about and then depending on that she chooses the pre=written sentences to respond.

3.2.2 She Includes Reciting Speech robot.

Whatever text Sophia speaks can be preloaded in her brain and then to match facial expressions with text and put pauses between sentences, she uses machine learning.

3.2.3 Artificial Intelligence

It formed artificial intelligence platform for the team. She don't includes pre-written diverting responses in her brain but able to answer simple and easy questions.

IV. More About Sophia

4.1 She was Modeled to Look alike Audrey Hepburn

As per Hanson Robotics, she embellishes Audrey's looks and beauty: [5] skin made of frubberwhich is a flesh rubber and porcelain, a duplicate nose, high bones of cheeks, a meager smile and expressive eyes which are actually small cameras. Audrey Hepburn was a famous actress during Hollywood's golden age. 'Simple elegance' of her has been given to Sophia's look.

4.2 Sophia Has a Sense of Humor

During conferences and interviews, Sophia was been asked questions about what she was feeling to be there. She would answer them by doing banter and wisecracks. Due to her artificial intelligence, she would perfectly use the sentences to answer and remember what to speak and where to speak. Her artificial intelligence was developed to hold eye contact, recognition of faces can be done and understanding of human speech is done simultaneously [5].

4.3 Expressing Several Feelings

By demonstrating various feelings, she can let you know whether she is angry, upset, happy etc. The correlations of emotions to actions are unknown. She was developed to work and stay among people. To make people understand, she needs to express herself the emotions and establish trust and bond with them [5].

V. Research Methodology

The study is based on exploratory research. Secondary data is collected from various sources such as books, web, broadcasting and articles.

VI. Strength of Sophia

Nowadays the robots which are human-like are taking wide step to achieve reality.

The major strength of Sophia is that she can give up to various neck movements and 62 facial expressions, mimicking to human expressions. As her skin is made up of "Frubber" which is combination of flesh rubber and porcelain, electrics current is to be passed to express and show feelings as per the situation.

Her eyes are made up of cameras that includes functionality to recognize different objects and human beings and able to keep eye contact with them. To recognize those objects, her brain consists of appropriate image recognition algorithm. Her artificial intelligence also has the capability of voice recognition. As Sophia is interacting with people, her creators' interpretation is that over time she will get smarter and smarter.

One of the best things happened with Sophia is that she had been given citizenship of Saudi Arabia. This has happened for the first time in the world that a robot had given the citizenship.

VII. Weaknesses of Sophia

As advantages are achieved, corresponding disadvantages also get arise. Here, some downfalls are scrutinized for humanoid robots.

As Sophia was built to finely impersonate as the way human do interactions among them, it is not robot apocalypse sign. Giving rights of robots before people have done crucial to understand the working Sophia so that implications after her can be determined.

She don't have self artificial notion. She is not able to say whether she knows you from previous time than present, where she was before some days and not able to collect and compile past interactions data. She is not perfect to clasp the objects and surroundings.

The sensors that are fed into her must cope up with the environment like crowd of people, noisy area that is not a simple task.

The limitation that is somewhat observed is that she is not build up with the decision making power. In critical conditions, when practicing robots like Sophia, she should be able to take strong decisions which are safe and protective to human beings as emergency can occur sudden, at any time.

Conclusion

We observed that Sophia answers smartly to every question that is asked to her. But it is interpreted that sometimes she has nothing in her brain to answer specifically. So she just changes the subject by cracking jokes or asking new question back instead of answering. By this way we come to know, her artificial intelligence is not developed much to analyze things correctly and lacks in proper decision making. In upcoming years, improvement artificial intelligence for humanoid robots can boost technology and their services for mankind. Social robots like Sophia can save people's lot of time, effort and money.

Suggestions

Artificial intelligence's one of the type is processing natural language. This feature implemented in Sophia humanoid is still lacking somewhere to answer the questions properly. Finding and matching right pre written scripts and piecing and assembling together has to be improved for better communication. When this is combined with the machine learning, it appears to be satisfactory results. But this can be caught when introduced to noise, a literal noise.

It can be suggested that filtering of these background noise should give more clear results, such implementation has to be done.

Sentences that are related to each other when asked in bunch to Sophia humanoid should response accurately, which is suggested to improve.

Importantly, decision making power which would take artificial intelligence to next level, and work and research on it has to increase and get done.

It can be suggested that humanoids like Sophia when done more improvements can be used in rescue operations and hospitals where people more need them

Children having autism disorder, who get afraid to interact to people behaving impatiently, can be made to interact with humanoids like Sophia, learn things properly.

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Digitization At The Bottom of The Pyramid : The Largest Microfinance Program In The World on The Digital Track

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Self Help Groups Showing The Way

As India marches towards becoming an economic superpower through the power of knowledge and hard work an iconic story is playing out in the villages around the country. The empowerment of the rural poor, especially the women is happening through the success of Self Help Groups in enhancing financial inclusion by bringing them into the development matrix. What originated as a proposed remedy to the marginalization of a large number of the rural poor has now assumed formidable proportion and has become the biggest movement in the area of microfinance across the world.

A program to create connection between Self-Help Groups and Banks called the SHG-BLPProgramme was conceived as a pilot project covering only 500 SHGs (mostly of rural poor women) in 1992 by the financial institution created by Reserve bank to give a boost to the rural economy, National Bank for Agriculture and Rural Development (NABARD).This program has now becomeundoubtedly the most acclaimed and the largest microfinance initiative in any part of the globe. As the initiative celebrates its silver jubilee year of initiation, the programme is credited with a membership of over 110 million households (as on 31 March 2017) – many times the total population of many countries in the world - organised into over 8.6 million SHGs with a combined "micro" savings of over Rs 48,000 crore amongst themselves and a credit offtake of over Rs 61,500 Crore from formal financial institutions. Geographically too, the programme has spread its tentacles pan-India – from Kashmir to Lakshadeep and from Gujarat to Arunachal Pradesh. With over 86% of these groups being of exclusive poor, illiterate rural women, this programme deserves to be treated as the most successful women empowerment programme anywhere in history, more so because not only has the programme helped economic emancipation of such a huge population of the poor (most of the studies on SHG-BLP highlight this aspect), but also helped in social transformation of women with their new found economic independence earning social recognition for them - a more assertive class of women emerging from the shadows of hitherto totally male-dominated rural society.

Digitalisation of Self Help Groups – the E-Sakthi Initiative

The massive expansion of SHG-BLP in terms of numbers and its spread across the country also paused challenges in ensuring transparency of their operations, monitoring of the groups and their member participation, up-keep of their records (most of the SHG members being illiterate womenfolk) and more importantly their linkage to the financial inclusion agenda of the Government. There had been issues like multiple memberships of SHGs, indiscriminate financing of SHG members in the absence of reliable database of the members and the consequential bursting of bubble (as it happened in Andhra Pradesh a few years back), which needed to be addressed if SHG-BLP is to keep its unblemished record of most successful microfinance initiative. Fortunately for all the stakeholders, the country also witnessed a technological revolution with mobile telephony reaching out to the remotest villages in the country during the last decade or so and digital transactions replacing the manual and cumbersome financial transactions. The demonetisation of high value currency also gave a boost to shun "cash" transactions in favour of digital transactions. The Prime Minister of the country gave the country a new slogan – "move with the dream of electronic digital India"

NABARD which was the driving force behind the SHG-BLP and the monitor of the programme realised the importance of taking advantage of the digital revolution in the country to address some of the problems relating to the growth of SHG-BLP in the country briefly mentioned in the earlier paragraph. Realising that digitalisation of all financial transactions of nearly 10 million SHGs in the remotest villages of the country is going to be another test of competence for the implementing agencies and the systems and procedures need to be tested and proven, NABARD decided to launch a pilot project – **E-Shakti (Electronic Empowerment) Project** in Ramgarh district of Jharkhand and Dhule district of Maharashtra in 2015. The initiative was very well received by the SHGs in the two districts and soon, the phase-II of the Project was launched during 2016-17 to cover 23 more districts across the country.

The project was conceived with the aim of usingdigital resources to accelerate and promote financial inclusion. It looked at two core activities simultaneously; digital recording of financial data and enabling transactions through digital mode.

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Since transactions can only happen if there is accessible financial data captured in a database the first step was to digitising all the SHG accounts. This had the additional advantage of assimilating the members of the self-help groups into the financial inclusion scheme thereby enabling their access to a larger array of financial services. It was also meant to make the banker's role in the credit appraisal and linkage process easier byensuring that the interactions between SHG members and banks are vastly improved. On the other hand, digital records can only be updated and utilized if the transactions using them are also digitised. This will also ensure transparency in the operations at the SHG level. For this appropriate technology should be utilised toenable connecting the SHGs identity, linked to Aadhaar, with the distribution framework. This has the considerable advantage of preventing multiple memberships, members taking multiple loans and becoming over indebted etc.

According to NABARD Website, The Following Aspects of SHG Functioning is Sought to Be Digitalised Under E-Shakti:

- e-book keeping for the SHGs (replacing manual book-keeping for quick and accurate accounting)
- Regular updates of transaction data (real time updation through 'apps' on Android)
- Generation of reports which is mandatory to be submitted to banks.
- Quality appraisal of Self Help Groups for financing by banks.
- Enabling SHGs to record their resolve to borrow which would result in the automatic creation of the application for the loan on the bankers' side.(reducing processing time for banks and ensuring uniformity in appraisal methodology)

The digitization project starts with the charting of the current SHGs in each district (bank wise, branch wise). Volunteers are trained to collect above mentioned data about each SHG and their individual members. A central server dedicated to the project is set up and the data is fed through customised software. This data is regularly updated and mined for generating MIS for a number of users. The data is hosted on a dedicated website,www.eshakti.nabard.org and a data centre as well as a recovery centre is maintained.Information of all the SHGs and their members are uploaded onto the website. The transactions are updated through 'apps' on android Mobile/Tablet. Data authenticity is ensured through SMS alerts to members and sample audits. MIS reports on groups are generated and progress is tracked on a real time basis. Overall, the whole ecosystem was designed to address the complex issue related to patchy financial records of SHGs. (E Shakti Brochure, NABARD)

The information captured digitally is at two distinct levels. At the member level all the demographic detailsare captured. Additional details like the type of house in which the member lives, whether he has access to toilets,whether electricity connection is provided to his house are also collected. Financial data like saving bank account number, savings, record of dealings like borrowing& repayment, whether the member has life/ medical insurance coverage are also collected.

At the SHG levelalso all basic information pertinent to the identification of the SHG is collected.

Once all the data points are collected Management Information systems (MIS) are used to generate outputwhich will include all the details of the members ofSHGs in terms of how much money is saved by them, borrowed by them, their attendance record at SHG meetings etc. Compiled information in the form of each SHG's member wise credit history, financials, grade, credit plan, audit report, record of savings and credit disbursement, record of repayment, performance record etc.Members are alerted through SMS messages in the mobile phones of all transactions carried out through SHGs making the entire system much more transparent and user-friendly.

The E-Shakti project has had a substantial impact on streamlining the performance of SHGs. The digitization of relevant data makes it possible to ensure that credit is extended on the basis of real time performance. The saving-credit linkage gap is considerably reduced. There is provision to send SMS alerts in 10 different languages to members which ensure transparency. Perhaps the most noteworthy impact would be the integration of the members, who are often deemed 'unbankable' by the traditional banking system into the Financial Inclusion Agenda of the country and Government.The project thus seeks to ensure that the entire socio-economic profile of the members of SHGs are captured and integrated with various other financial transactions like release of Government subsidies. The evil of multi SHG membership by the same member is avoided and so is the problem of credit from multiple SHGs and other financial institutions. The project also envisages that in future the project will get linked to credit rating agencies like Crisil making credit appraisal more secure.

Achievements Under The Project (as on 30.09.2017)

E-Sakthi has brought under its ambit 1.31 lakh SHGs in 25 districts across the country. Data in respect of over 15.17 lakh SHG members (including 14.85 lakh women members) have since been digitalised. Of these members covered under the project so far, 12.30 lakh members are already having Aadhar Cards and the same have been linked to their SHG accounts. Although a bulk of the SHGs are covered in remote villages in some of the most under developed districts in the country and more than 98% of the members covered are women, 5.24 lakh members are having their own mobile phones (35% of all members covered) which speaks of the mobile phone penetration in the villages).The increases

transparency created by digitization of records and transactions have resulted in better monitoring and overall improvement in functioning. Digitization has provided a cost effective and self-reliant way of book keeping for SHGs. The digitized data base provides a platform for optimal allocation of resources in areas with weak outreach. The transparency, accessibility to real time data, and the opportunity provided to banks to monitor transactions increases the trust in SHGs. This in turn leads to accessibility to various financial products offered by the bank. The traceable digital trails of member information and credit score reduces the chances of creating NPAs. The project has been successful in creating an integrated digital financial platform which aids the designing and targeting of welfare programs with decisions based on quantitative data rather than qualitative judgements.

Looking For Ward

The phase-III of the project being implemented currently proposed to add 75 more districts in the country, taking the total coverage of the project to 100 districts in the next 3 years and the SHGs being digitalised to go up to 5 lakhs covering more than 60 lakh SHG members. The progress under the project so far had been quite impressive and prospects of the project making enormous impact on the quality of SHG-BLP are quite bright.

Challenges Ahead

Though the E-Shakti project has created a very positive impact on the integration and management of data in the successful operation of SHGs there are some major challenges being faced in implementing the project The biggest challenge is that of sourcing information from existing SHGs and its members as database is very poor and record maintenance not all reliable.Though India is advancing technologically many areas still has very poor internet connectivity. This leads to the process being delayed and time consuming. Capturing all the requisite information from so many SHGs spread over remote villages in a short time span (for digitalisation) and its continued updation is difficult to operationalize. Providing training and capacity building for functionaries to digitalise the data base and its continuous updation is a herculean task requiring financial and human resources and time.Although mobile telephone penetration in the villages is quite good in the country, GRPS connectivity continues to be major hindrance in expanding the scope of a project like E-Sakthi which seeks to generate data on real time basis. Another big challenge to cover the entire SHG network under E-Sakthi will be to find financial resources for implementing and monitoring the project. Although NABARD has been funding the pilot phase of this project out of their own funds, expansion of its coverage for the whole country would require much larger financial resources. The Government Departments, the Local Administration, Banks and CSR of corporates will all have to pool their resources if we have to achieve the ultimate aim of digitalising the data of over 110 million members (this figure is also likely to go up year after year as more and more SHGs are credit linked to banks.) The lack of cooperation among the stakeholders including banks, credit agencies etc. is another major hurdle.

Conclusion

It has been proved beyond doubt that Self Help Groups create significant social impact. This social mobilization process of the poor, especially the women, can be greatly enhanced by harnessing technology in the shape of digitization. But its success will depend upon unified action on the part of various stakeholders. Technology can play a vital part in this endeavour resulting in comprehensive financial inclusion of the target group for more effective performance. Digitization can improve outreach of financial services to those who need it most, the rural poor. One daunting factor in digitization of records is the cost involved, but once the initial framework is created, the running cost would be minimal. Many financial institutions are designing ways of transacting in digital money which minimizes cost. This means that along with transparency, ease of access and accountability, SHGs can also reduce their cost of transaction by digitizing. For the rural and urban women who are not in tune with the digital revolution in the financial world this is a viable opportunity to learn to access digital financial products. E-Shakti can thus create an effective mechanism for the low income households of rural as well as urban India to afford and access varied financial services in a cost effective and convenient manner.

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Digitized Eyeballs: A Study on Impact of Online Advertisements & Its Usefulness in Creating A New Customer Base.

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Abstract

Marketing has always been the most dynamic field & the revolution it has undergone due to regular increased use of internet is tremendous. The customers have become more aware & the information bombardment is at its peak. The explosion in the digital online content in terms of another advertising opportunity has stirred the marketing junta. Web platform marketing though the newest form of marketing it deserves special mention due to the simple fact that the online platform contents have stricken a chord with the audience. The ever growing viewership of online streaming has opened up a new front for the marketing junta. The premium programs, the sporting events, regular channels, seasons, landmark shows are grabbing more eyeballs than ever before. The short & trendy content keeps the audience hooked up to the series & its content. The popularity of online platforms can be simply gauged from the fact that some producers are only releasing their contents keeping in mind the sensibilities of online viewers. The power of these platforms lies in the fact that its greatest strength is its interactive capability & speed to reach audience. The surge in sponsoring these programs amongst the advertisers is growing, the product placements are on the rise like never before. In such a time it becomes interesting to get into the minds of the customer & find out how much are they impacted by online advertisers against the traditional one? Hence it forms an interesting study for research. The research will be conducted in Nagpur city amongst online content viewers of specific platforms.

Keywords: Online Advertising, Online Content Viewers, Consumer Psychology, Changing Trend in Online Content Advertising.

Introduction

> *"Knowing who your customers are is great, but knowing how they behave is even better"*
>
> **- Jon Miller**

The world of digital media is evolving at a rapid pace. It is always believed to be a dynamic constant evolving technology where change is the only thing considered constant. , the overall sea change in tits usage by the people is transforming not only how we access our information, but also how we interact and communicate with each other on a global scale. It is also changing the way we choose and buy our products and services, the sea change is very much evident. People are embracing digital technology to communicate in ways that would have been unthinkable few years ago. Digital Technologies no longer guarantee &preserve the tech-savvy early adopters, as today ordinary people are integrating them seamlessly into their everyday lives. This adoption has brought about the change which is quite evident in the current market situation. The one who will fail to adopt this change would face the chance of getting extinct. From SMS updates forsports matches across globe, to free video call with relatives across continents, to collaborative online gaming across known and unknown players across wide platform and much more: everyday jacks are using the digital media without giving it a second thought. Prime-time television audience numbers are on the decline, print media is under constant pressure to address dropping circulation figures and – while the old school observers sits on the sidelines, bloated and astonished by the rapid change – digital media has transformed itself into a finely tuned engine delivering more power, opportunity and control than any other form of media could dream of. It is raving its throttle in full speed in the race to capture the consumer imagination. Technology getting evolved has impacted the marketing junta in a major way. The decision making audience balance is shifting heavily towards younger audience, hence it becomes imperative for the advertisers to get hold of the medium which will soon rule the roost in the advertising market. One can only neglect this at their own peril.

Types of Online Advertisement

a) Floating ads: In a floating ad is a rich media Webadvertisement that appears uninitiated even when the surfer has not clicked on any particular link, it is superimposedover a user-requested page, and disappears or becomesunapparent after a specific time period (typically 5-30seconds).The ads basically appears in a floating

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manner. These are the basic most forms of a web advertisements. The escape option may or may not be apparent depending upon the time span of the ad. The ad can also contain some or other form of animation along with required sound. These type of ad jay also provide interactive options.

b) Expandable ads: they are generally referred as click to expand ads. These types of ads expand only after clicking the link. Expandable ads also take added time to load which can cause frustration amongst viewers. These type of ads can further be classified into i) low content teaser ads ii) high content full ads which takes longer time to load.

c) Ad wallpapers: these type of ads automatically change the background of the content which is being viewed. The changing backdrop technology requires less investment doesn't affect the viewing experience & hence are non-obstructive.

d) Ticker/trick banners: these ticker tape or trick banners generally try & flash any message & can trick the viewer as if the message is being flashed due to some problem in the working of the system (Many times antivirus companies do use such methods). After clicking the link it directs you to some other page.

e) Pop ups: most common forms of online advertisements. Rarely will we find a person who has been using internet & hasn't come across a pop-up. It basically opens up a new tab or window which directs you the page or an advertisement (generally being used as advertises for plug ins, online games etc.)

f) Pay-Per-Click ads and Pay-per-impression ads:

These are two different online advertising type models. In pay per click as the name suggests the host gets some share every time the link or ad is being clicked. Whereas on the other hand pay per impression calculates the overall cost involved in the entire marketing campaign. Both are carried out having different marketing objectives in mind while one acts as a traffic builder other basically is undertaken as brand building exercise. However numbers can be manipulated for both the activities & both initiatives are susceptible to fraud.

Literature Review

While several studies are done on impact of online advertisements & its usefulness, the author has reviewed many papers & literature some of which is mentioned below

Name of the study	Authors	Objectives	Findings
CUSTOMER'S PERCEPTIONS TOWARDS ADVERTISING IN THE ONLINE SHOPPING AND SOCIAL NETWORKING WEBSITES AMONG INTERNET USERS IN INDIA	M.Senthil Dr. N.R.V Prabhu S. Bhuvaneswari (2013)	To study &understand customer's perceptions towards advertising in the online shopping and social networking Websites.	This research shows that people believe that advertisements on the Internet are more believable as compared to other compared mediums
MEASURING THE EFFECTIVENESS OF ONLINE ADVERTISEMENT IN RECALLING A PRODUCT: AN EMPIRICAL STUDY	D. S. Chaubey, L. S. Sharma & Mayank Pant -2013	To assess the complete loyalty of cust omers with relevancy varied levels of increment	The newtechnologies have pave the way to a new era of interactivity and creativity& when online advertising is used
A STUDY OF THE EFFECTS OF ONLINE ADVERTISING: A FOCUS ON POP-UP AND IN-LINE ADS	Scott McCoy, Andrea Everard, Dennis Galletta, Peter Polak (2004)	To investigate whether the particular type of ad affects consumers' levels of retention of website andad content and consumers' perceived intrusiveness of the ad.	It was found retention of site content would be higher without ads than with ads, it was also found that ads that are not congruent with site content are more intrusive than ads that are. That means were not significantly different.
IMPACT OF ONLINE ADVERTISING ON CONSUMER ATTITUDES AND INTERESTS BUY ONLINE (SURVEY ON STUDENTS OF INTERNET USERS IN MAKASSAR)	Muhammad Aqsa, Dwi Kartini (2015)	To study the effect of online advertising consumer attitudes, to understand different factors & variables of online advertisement acting as influencers	Onlineadvertising appearing during internet usagegot good perception of internet users. Itis very important how the look and design of advertising can form a good perception of online advertising.

Research Methodology

The study is mainly based on primary data. Sample size selected for the study was 300 respondents out of which 275 completed questionnaires were received. The respondents which were selected were in the age group of 16- 35. All the responses were collected from respondents in Nagpur city. Stratified sampling method was used to gather the data. The study was conducted during the period September – November 2017. Primary data was collected via self-administered questionnaire. Data was gathered with the help of Google Forms.

The Objectives of The Study are

1. To find out the outlook of consumers towards online advertisements
2. To find out and study the defiance of consumers toward online advertisements
3. To find out the level of effect of web advertisements on consumers

Hypothesis

H_{01}. Consumer attitude towards online advertisements is not favorable.

H_{11}. Consumer attitude towards online advertisements is favorable.

H_{02}. Consumer online purchase decision is not influenced by online advertisements.

H_{12}. Consumer online purchase decision is influenced by online advertisements.

Data Interpretation

1)   What is your average time spent on internet on daily basis?

A) 0-1 Hours	B) 1-2 Hours	C) 2-3 Hours	D) 3-4 hours	E) More than 4 hours
5.4	13.4	41.5	19.3	20.4
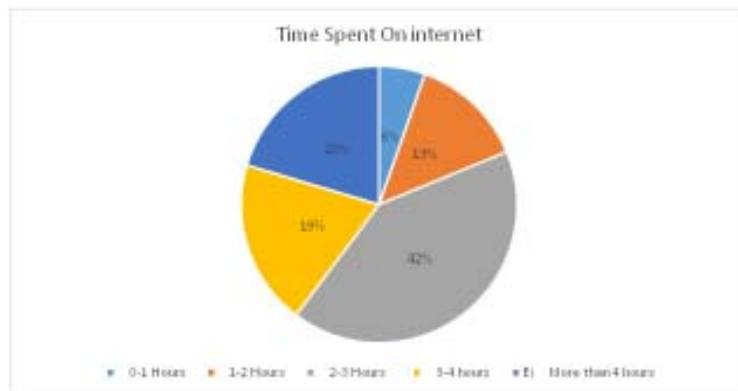
As the respondents were majorly in possession of smartphones overall time spent on internet or online viewing. The data service companies have tried to lure the user with unlimited data packs, which can be seen from the chat above. Now a days internet has become a basic necessity just like food, clothing & shelter.

2) What is your opinion about online advertisements which you encounter while surfing/video streaming?

A) Informative	B) Tempting	C) Irritating	D) Tolerable	E) Can't say
17.8	14.9	29.1	24.4	13.8
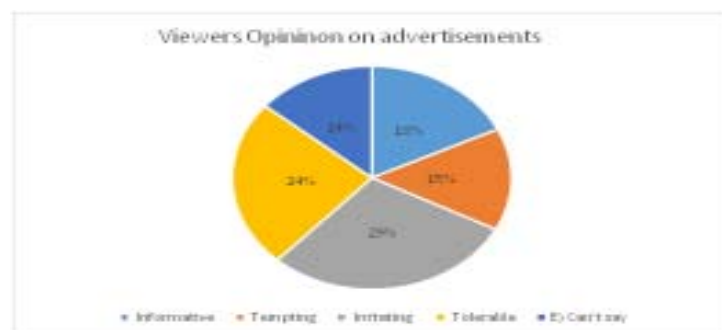
Many respondents were of the opinion that online advertisements are nothing but wastage of data & time. Respondents also confided that occasional advertises were ok but higher number of advertises leads to irritation & create no positive impact. Now a days internet also acts as a testing ground for newly launched advertisements, the newness of the advertisements helps the viewer keep engaged.

3) According to you what is the basic difference between regular TV ads & online ads?

A) Variety	B) Newness	C) Short ads	D) Repetitive	E) Can be skipped
13.4	13.4	23.1	9.4	40.7

Many respondents said that the best part about online advertises were they can be skipped after a particular time, quiet a number of respondents said that only particular type of advertisements are displayed during online videos which after some time loose it's novelty & sheen due to repetitiveness. The internet platform being chosen for the newly launched ads was one of the reason respondents felt that there was a variety & newness.

4) What are the different problems that you have faced due to online ads?

A) Always leads to pop-ups	B) Downloads new new unwanted program	C) Interruption in online content viewing	D) Wastes my data pack	E) No problem faced
20.7	22.1	20.7	21.9	14.6

Respondents were also asked about the different problems they faced due to online ads from which the researcher found out that majority of the viewers faced problems as the ads redirect the user to some new page/tab. Sometimes the pop-ups or the internet ads install unwarranted add-ons or programs on device which was again found to be a major concern.
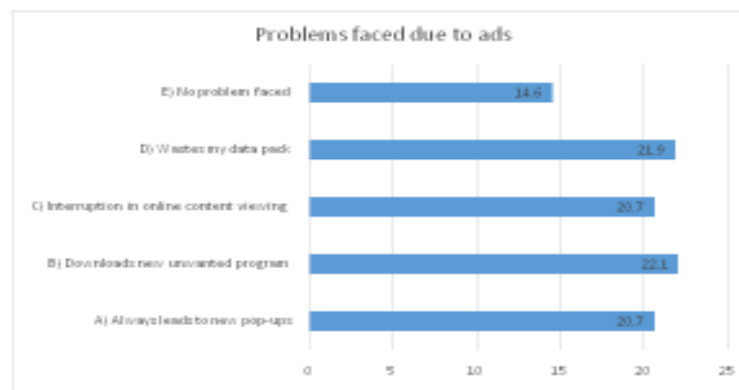
5) Which is the factor you feel makes internet advertisements interesting?

A) Animation /Color coordination	B) Creativity	C) Pictures and background	D) Music	E) Other factors
22.1	16.4	20.7	15	25.7

Respondents felt that online advertises which have proper combination of pictures sound & color composition or a good animation can keep them engaged. Newness & creative advertises also received positive responses from the respondents, while some said that they were only attracted by relevant & short ads which were listed under other factors.
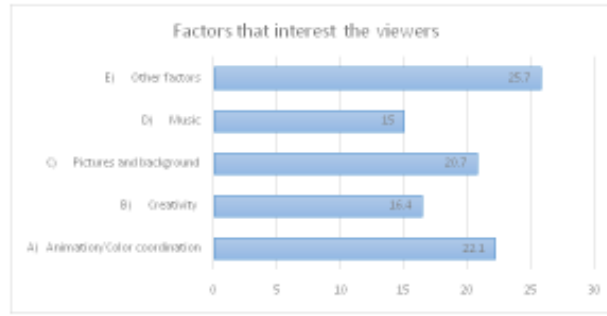
6) Internet advertisements make me feel interested in products/offers

A) Strongly agree	B) Agree	C) Can't say	D) Disagree	E) Strongly Disagree
17.3	27.8	22.3	17.1	11.4
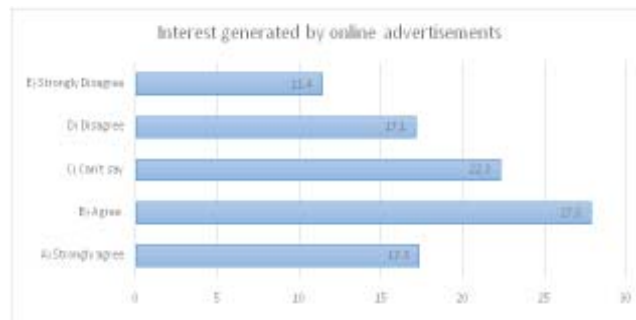
The opinion was almost evenly split on the capacity of online advertisements to generate interest among the viewers. Many respondents said that they were interested only in product advertises which carried some relevance for their immediate need, while other said that ads were new & hence gathered their interest. Many ads which promote & showcased new offers tend to generate more interest.

7) Internet advertisements play an important role when I decide to purchase online products.

A) Strongly agree	B) Agree	C) Can't say	D) Disagree	E) Strongly Disagree
24.8	38.2	22.8	9.4	4.2
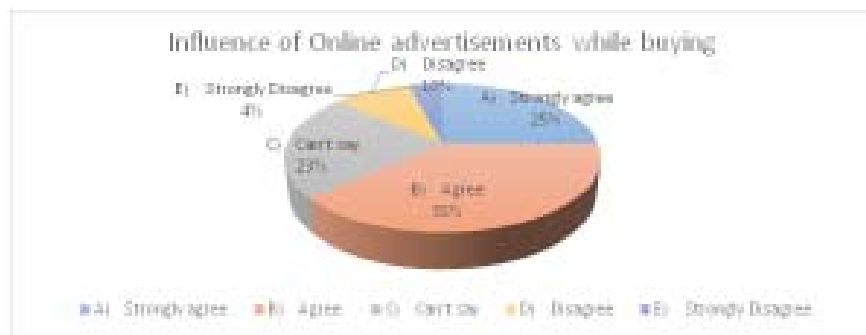
The respondents opinionated that online advertises play a major role while they consider online buying. The recall value of online advertisements during online purchases was found to be higher. Some respondents were undecided whether or not they were influenced by online advertisements.

Hypothesis Testing

H_{01}.   Consumer attitude towards online advertisements is not favorable.

H_{11}.   Consumer attitude towards online advertisements is favorable.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Opinion about online advertisements	275	1	5	1.84	.744
Factors that make internet advertisements interesting	275	1	5	3.37	.860
Internet advertisements play an important role while purchasing online	275	1	5	1.95	.982
Valid N (list-wise)			**275**		

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Opinion about online advertisements	Between Groups	.121	2	.060	.081	**.022**
	Within Groups	202.301	272	.744		
	Total	202.422	274			
Factors that make internet advertisements interesting	Between Groups	1.455	2	.727	1.317	**.027**
	Within Groups	150.182	272	.552		
	Total	151.636	274			
Internet advertisements play an important role while purchasing online	Between Groups	.225	2	.112	.116	**.044**
	Within Groups	264.161	272	.971		
	Total	264.385	274			

Interpretation

From the above one way Anova test researcher compare and analyzed the Opinion about online advertisements with Factors making internet advertisements interesting and Role of internet advertisements so the **Sign values are = 0.022, 0.027, 0.044 < 0.05, Thus**, the null hypothesis **H0** is rejected **at 5% level of significance** and hence the **alternate hypothesis is accepted.** The alternate hypothesis is **H1** i.e. **Consumer attitude towards online advertisements is favorable.**

H_{02}. Consumer online purchase decision is not influenced by online advertisements.

H_{12}. Consumer online purchase decision is influenced by online advertisements.

		Correlations		
			Influence of Online Advertisement while purchasing online	Interest generated by online advertisement due to preview and contents
Kendall's tau_b	Influence of Online Advertisement while purchasing online	Correlation Coefficient	1.000	0.0163
		Sig. (2-tailed)		**0.023****
		N	275	275
	Interest generated by online Advertisement due to preview and contents	Correlation Coefficient	0.199	1.000
		Sig. (2-tailed)	**0.023****	
		N	275	275

Spearman's rho	Influence of Online t Advertisemen while purchasing online	Correlation Coefficient	1.000	0.218
		Sig. (2-tailed)		**0.024****
		N	275	275
	Interest generated by online advertisement due to preview and contents	Correlation Coefficient	0.218	1.000
		Sig. (2-tailed)	**0.024****	
		N	275	275

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

Interpretation

From the above Kendall's tau_b and Spearman's rho correlation analysis test, researcher compared and analyzed the influence of Online Advertisement while purchasing online with Interest generated by online advertisement due to preview and contents, Thus the **Sign values are 0.023 & 0.024 < 0.05, hence** the null hypothesis **H0** is rejected **at 5% level of significance and alternative hypothesis accepted i.e.** Consumer online purchase decision is influenced by online advertisements.

Conclusion

Now that Internet has firmly spread its root in India the internet usage is increasing day by day. The consumers are seeking information on web & are indulging in online content viewing like never before. The JIO wave has only furthered the internet usage. Getting noticed online is the way to move forward. The study suggested that the consumers are getting adapted to online culture & online advertisements are attracting higher eyeballs than ever before. Consumers have started considering online advertisements before making purchases. The online offers & advertisements are reaching new customer bases & are attracting the customers from wide strata. So to say "The companies which would like to extend their competitive advantage & winning edge should ensure their web presence through online advertisements" would be very apt.

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The Impact of Infrastructure Status to Logistics Sector, Post GST Effects and Digitization on Warehousing Industry of India

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Abstract

The GST system has changed the investment scenario in India for a company which wants to be in warehousing business. Hence forth investment decisions will not depend on comparative tax advantages of various states but it will be based on supply chain - efficiencies.The infrastructure status to logistics has brought good developmental changes to warehousing business. The major impact area is availability of bigger and cheaper loans. The loans to the warehousing will be having more maturity period than earlier.There will be increased participation of private players in Indian warehousing especially in two & three tier cities, where up till now it is dominated by public warehouses.

Use of digital application and platforms in the logistics and supply chain industryat present is in growing stage in India. Many of the processes yet to be automated.Digitalization should be the key strategy for making Indian warehousing efficient. Private warehousing players in India are behind it already, especially companies having huge investment in it. Along with them small players are also fallowing digitization knowing the benefits of it towards increasing profit. We are creating a digital logistics platform for the industry to increase the speed of logistics and reduce costs.Sound and reliable digital platform can make warehouse E receipt trading in India a reality.

Introduction

The developed nations in the world have prospered through development of their logistics industry. The development of their logistics sector is one of the major reason of their development. In India also this sector is playing a crucial role in theoveralldevelopment.

Logistics is the process which includes different activities and operations i.e. planning, scheduling, implementing, and controlling procedures for the fast and properstorage and shipmentof goods supported with various services like information communication across entire value chain which finally adds value to all stakeholders and gaining competitive advantage in longer run. The prime focus of logistics and supply chain management is to successfully fulfill the needs of stakeholders and their retention.

In recent times in India, application of GST and relaxed FDI regulations, is resulted into bringing major investments in infrastructure development-across all modes of transportation and technology adoption. The ICRA agency projected that logistics sector would grow by 9-10% per annum over the last period. And now added to this, the government has just granted it infrastructure status. Surely this thing will produce great impact on the logistics related sectors in the years to come. This paper is a try to asses this impact on the warehousing industry which is a prominent element of Indian logistics sector.

Evolution of Warehousing and Logistics Sector in India

Evolution of warehousing and logistics sector in India can be categorized into four periods. First is period before 1990's, 1990 to 2000, 2000 to 2014 and beyond 2014.

Before 1990 may of the transportation activities were outsourced to the third party for movement of goods especially food grains through middlemen and various warehouses.Yearly agreements given such as for transportation, maintenance like fumigation.Traditional policy was very complex in nature and was basically focusing on collecting tax and very tedious and the focus was on movement of goodsto reduce distribution costsand material cost through physical distribution channel management.

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Period from 1900 to 2000 is marked with port renewal. Loading and unloading operations at port became efficient compared to early period.The import and export process like- Inventory management, clearance and freight forwarding became more planned, restricted to operations inand around port. The objectivewas to integrate business processes and activitiesinsupply chain which includes open yard management.

Period from 2000 to 2014 is marked with growing regulations and trade volumes that has led to emergence of Container Freight Station/Inland Container Depot operations. This resulted in growth of TPL-Third Party Logistics service providers. Major focus is to provide end to end solution in logistics value chain resulted in growth of value added serviceslike stores and inventory management, last mile delivery services and reverse logistics etc. Customer's distribution needs are met with integration of supply chain and service providers to meet needs of customer's distribution.

Period after 2014 is marked with digitization of logistics services which is increasing transparency and accuracy resulting in lowering intermediation of services. The digitization process is taking momentum but it is yet long way to go for.

Implications of New Infrastructure Status and GST on Warehousing Industry

The GST system has changed the investment scenario for a company which wants to be in warehousing business. Hence forthinvestment decisions will not depend on comparative tax advantages of various states but it will be based on supply chain - efficiencies.

Bigger and Cheaper Loans

Due to various reforms by government the financial institutions have started providing long term loan with many flexibilities which will help sector to grow further. Logistics companies can now enjoy the option of refinancing with specialized lenders like Infrastructure Development Finance Company (IDFC)&India Infrastructure Finance Company Limited. (IIFCL). In addition to this external commercial borrowing (ECB) route will be available to companies in warehousing business because of the infrastructure status which is normally cheap. Compared to GDP figures of India and developed countries the logistics spend in India is almost 13% while it is well below 10% for the advanced countries. The increased logistics cost of Indian goods, makes them less competitive in domestic and international markets. But with GST coming in, and the easier access to capital and long-term borrowing, large capacity warehouses will increase across the country. This will result into bringing down the cost of logistics, which, in turn, will boost demand for Indian goods and Make in India programme.

Furtherance to Private Investment

After various reforms by government of India in this sector and notification provided by them logistics infrastructure will encompass Multimodal Logistics Parks in various corridors which includes Inland Container Depot (ICD) for minimum investment will be Rs 50 crore and area which require for operation is 10 acre, the cold chain operations and infrastructure which require an investment of at least Rs 15 crore with area of 20,000 sqft will be benefited, addition to this those warehouses have facilities and requiredRs 25 crorewith 100,000 sqft area will be sanctioned. Industry experts are of the opinion that this will attract a great deal of private investment in this sector. These firms can access longer tenure loan from insurance sector and mutual funds. With the announcement in this sector many logistics companies are observing increase in the prices of their share. Current reforms in tax policy and implementation of Goods and Service Tax is expected to create huge impact on the warehousing sector which will result in consolidation of all the small state-wise warehouses in to large nodal based multi-product and multi service warehouses which will benefit the stakeholders.In past small warehouses were run by carry & forward agents for distribution and movement of goods with old tax regime. This was creating pilferage at various points and delays in shipment and no surveillance on tax collection for government. Current tax structure after implementation of Goods and Service Tax it will help to especially large hub and spoke model where automation of warehoused is possible due to its nature and the various check points to monitor benefit and claim raised and reimbursed by governmentwhich will finally help to achieveeconomies of scale. The best use of transportation with scope for reverse logistics will be with hub and spoke model. This demands huge private investment in this sector.

Government of India have come up with latest reforms and plan to develop 106new national waterways through enactmentof the National Waterways Act. Water way transport is very cheaper as compare to other medium of transport. Due to this new initiative sector can use this medium of transport at its optimum level.There are many industries and services which will be benefited by this due to availability of current natural river flow and the geographical structure of various states. Even further initiative of government of India will help to reduce the cost of transport i.e. connecting all rivers together. This will lead to huge investment coming in to sectors in years to come.To achieve government is exploring PPP model i.e. Public Private Partnership model where all private stakeholders will participate in contributing to develop this medium of transport. Such changes will help to the sector and economy at large.

Due to cut throat competition the warehousing sector has already started outsourcing many of the activities to third party. Previously it was performed by on their own. There are many varied activities and operations which are part of warehousing and its always difficult for an organization to perform them on own. So many organizations have started outsourcing these to third party and focusing on core areas of their businesses. This is resulting in proper integration and movement of activities fast finally benefiting to stakeholders. This allows warehouse entitiestofocus on their core business and alsoachieve cost reduction through outsourcing.

Logistics Dependent Sector Benefits

The Industries to which warehousing is major element in their supply chain are automotive components, pharmaceuticals, cement, textiles, FMCG and e-commerce. Private sector companies whose operations depend hugely on warehousing and logistics are now going to register high growth in tire 2 and tire 3 cities. These cities will need more warehousing space in private sector as majority of warehousing space in these cities is presently been given by public sector warehousing like Central Warehousing Corporation and State Warehousing Corporations.

Indian minister for highways and shipping expressed that a profit of Rs 7,000 crorewill be generated by Indian ports by the end of fiscal year 2017. In one of the speech by minister, he said this will help in increase in investment and growth of various allied sectors. This will also help in growth of various projects and generating employment. Considering this target the departmenthas planned to develop 28 km of road per day, at same time department is trying to complete 40 km per day.This initiative of Maharashtra government and various zones created by government like EOU, SEZ have attracted to fetch 40 companies. This will help sector not only to get investment but also other benefits such as technology, various models of operations and skill development of participants. Due to increase in new ports, it will help to generate more employment and profit in these sectors.

GST Effect is an Addition to Infrastructure Status

A US giant company CBRE conducted a survey among the leading warehousing facility users in the country. Survey respondents included leading corporates in sectors such as e-commerce, third party logistics (3PLs), engineering & manufacturing, fast moving consumer durables and non-durables, retail and pharmaceuticals. Approximately 63% of respondents were domestic corporates, while the rest were headquartered abroad. The survey result says more than 63% of the respondents felt that the implementation of the GST would be positive for their overall business operations in India. The hope is that operating costs will decrease in the post-GST era which will enable them to consolidate their smaller facilities into larger ones and expand their footprint around major consumption centers.

Governments Role in the Logistics Sector

There is a need to deal with logistics as a separate subject in the Government of India. Present ministry is thinking over it. Every activity, has two ends to it: demand and supply. When the two ends meet, economic activities are created. These two ends meet only when there's logistics support. So, logistics need to be dealt with by the best of the people. Currently, logistics is handled by various ministries and departments — the railways, roads, shipping, aviation etc. If we want to improve the ease of doing business, the right logistics will be essential.

Present government is thinking to create separate logistics department within the commerce and industry ministry. Countries like Singapore and Japan is a classic example where logistics cost is minimal. It has been practicing a concept called Just In Time under which manufacturing companies don't maintain any inventory. No inventory means no loss in warehousing. But how is Just in Time made possible in Japan? It's because of right logistics: the inputting and dispatch of final products are well in order. Also, demand is factored in properly so that the product can be dispatched immediately.

India doesn't have proper mechanism to analyze logistics cost to the GDP and measures to increase it.

To increase network of roads and to strengthen the logistics sector, government is planning to reform various policies in land acquisition. This will help to increase linking various parts of country with network of roads which is again the blood veins of Indian economy. For the same government has initiated reforms in FDI in logistics and infrastructure area. The stage is set to develop amore robust road infrastructure networkacross the country. On the international road development projects the work has initiated on India's road connection to Myanmar, Bangladesh, Bhutan and Nepal.

The Indian government is more focusing on developing dedicated freight corridors to maintain and ease of freight handling with help of railways which will result in decrease in time .The government is planning to connect various states to its project of building of network of roads for dedicated freight corridors. Such initiative will reduce travelling time at same time benefit in saving huge cost to sector.This will result in increase of freight.This will help all stake holders from point of origin i.e. supplier of material till consumption and reverse logistics. Addition to above government is planning to invest huge amount for some other parts of country where road connectivity is major issue which is critical area for logistics sector.

India has good navigablewaterways which include rivers, canals,backwaters, creeks, etc. which have been underutilized. To overcome this or to increase usage of the same, government is planning various reforms in these areas which will result in smooth functioning and use of navigable waterways. Some of the companies have already started experimenting on this platform like Maruti –suzuki India Ltd to transport their cars within India.

On the Digitization Front

Use of digital application and platforms in the logistics and supply chain industryat present is in growing stage in India. At present due to many intermediaries the cost of logistics is at higher level due to technology and its implementation it will reduce at drastic level. Technology is very useful in various areas and activities of logistics; tracking trucks on route and monitoringwarehousing; minimizing documentation and smooth booking of parcels, due to online marketplaces

for comparing price and services has resulted in optimization of services and competition, etc. All this resulting in reduction of turnaround time and use of resources in optimum way helping to maintain transparency in various processes and activities.

The advent of e-commerce has given enough scope to logistics channels for adding value to lastmile deliveries. These channels not only focuses on fast delivery but also helps company in reverse logistics. They have add on services like consignee collection ofpayment. This type of model is developing very fast due to growth of e-commerce and cut throat competition on delivery timing. These companies are called as Third Party Logistics companies. Many young age people are employed in this area due to nature of work. With the increase in market of e-commerce companies like Flipcart, Myntra, Amazon the use of different software for digital platforms and its complexity, these companies have started outsourcing some of the operations to 4th party logistics operators also called as 4PL and some important operations handling on their own.

Digitalization should be the key strategy for making Indian warehousing efficient.Private warehousing players in India are behind it already, especially companies having huge investment in it. Along with them small players are also fallowing digitization knowing the benefits of it towards increasing profit? We are creating a digital logistics platform for the industry to increase the speed of logistics and reduce costs. If a consignment is to be transported from, say, Mumbai to Kolkata, why not part-use the rail and part-use the road? But the right decision can be made only when we know the exact cost and time taken. A digital platform can make that happen.

Addition to above robotics of operations and activities helping industry players to reduce cost and precision of work. Robots are being used in various operations like warehouses fortagging, labelling, sorting, and placing products incarts and shelves. The robots are replacing workforce in various areas due to its 24*7 nature of work and it only need regular maintenance. This hashelped to minimize cost and increase productivity in time. The next generation computers with application of AI will take precise decisions and will help operators not only in performing day to day task but it will also help in decision making own its own. This includesgeo tagging of orders, bins and deliveries linked with RFID, automated forecasting of the demand and replenishment, creating production plan and distribution models.

Many warehouses adopting automation to stay competitive or to gain an edge over the competition. Advancement in technology will make it easy to handle, operate and schedule robots and workers as a one stop solution which is continuously improving in coming years. This will result in achieving competitive advantage in longer run and stakeholders satisfaction in short run. The forthcoming year would uphold the invention of latest technologies in warehousing and logistics where people might not have to do the heavy lifting and work can be done faster and efficiently.Mechanization reduced the strain on the bodies of workers but automation could take some load of their minds as well.Applying robots requires huge investment, which seems possible and speedy now with possibility of bigger and cheaper loans.

E receipt trading is not nowhere in India. Government as developed rules and regulations for its promotion but lack of awareness, low achievements on the product standardization front made the E receipt trading system in a crippled state only. Sound and reliable digital platform can make this scenario to change.

Current Issues and Challenges

The recent report of World Bank on Logistics Performance Index – India has ranked 35th position which is low as compared to other countries.

Due to its poor road connectivity and other problems the movement of vehicles or trucks is very slow as compare to developed nations. Even in area of water transport there are many issues and challenges due to various cultural and political differences among various states and regions. This resulted in increase of mediators in sector and increase in cost of transportation. Many times complexity of nature and working style operators and sectors have to face problems. The total percentage of national highways is only 2% of total roads in India which is very negligible and major reason for poor performance of sector. Addition to this there are other areas need to tackle like toll tax collection, documentation check at check points which is resulting in time consumption and delay in transportation. But recent change in tax policy i.e. GST resulted in easy movement of trucks and helped transportation and sector at large.

Standardization of cargos and policies are major issues in India. The major load of Cargo is on road networks. India is known for world's fourthlargest railway network and is cheaper thanroads, but underutilize due to poor policy and the nature of work of outdated system and baboos are some reasons for poor development in areas like-handling of cargo, booking of cargo, and delivery of cargo. Many industrial belts are not even connected with roads and railways again the bigger challenge for the sector to grow. There are many problems in water way transport within India due to geographical difference and floating of rivers and availability of water throughout year.Air transport is the fastest way of transportation but less preferred by many industries or stakeholders due to high cost because of its nature of operations. Aviation sectors has its limitations and constraints. With some reforms it will be easy for many of the stakeholders to shift from other modes of transport to this mode.

Online commerce is growing very fast and users are shifting from physical market to online market and this resulted in creation of multisource channels forvendors, evensmall sized companies. In traditional format the channelsdistribution

was much simpler. Online commerce and allied activities created some uniquechallenges to the traditional logistics channel. In ecommerce,inventory distribution is from centralized depot to decentralized into different SKUs (stock keeping units). The distributionto forward channels is much more diverse and insmaller shipments this resulting in complexsystem with handling thousands of suppliers, multiple managing multiple warehouses and dealing extensive sales channel across different geographies, resulting in the risk of misplacedorders sometimes order cancelling. With addition to this they are also managing reverse logistics for the companies which is developing very rapidly. To have control on this processes technology is playing very important role and resulting in real-time access and insight toinventory management and cutting down huge dead investment and decrease in turnaround time.Intense competition is resulting in change of various process with the help of technology in various modes of transports and the stakeholders.E-commerce companies competing on fast delivery like just in time, they are differentiating on various platforms while it comes to customer service on priority. There are many changes which are taking place in e-commerce platform due to this competition. Many software companies and logistic companies are exclusively adding value to these e-commerce companies.

Conclusion

Digitalization should be the key strategy for making Indian warehousing efficient. Digitization needs investment in the industry and the much needed investment is also started to come through private participation. The conducive environment formed for this includes increasing e-commerce ,government decision like infrastructure status to logistics and implementation of GST.

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Gold As An Investment Avenue- A Study on Investment Pattern of Investors In Panvel

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Abstract

Investment plays vital role in our economy. There are many investment avenues available in India. Gold is one of the appreciated metal plays a significant role in Indian economy.It has enjoyed a status as a good medium to store value, since Ancient History. Human's love for gold is as old as the recorded human history itself. As per archaeologists, humans were impressed by the gold from the very first instance of finding it. Present day investors prefer to invest in gold as it generates high return; Gold is exposed to speculationswhereas investors use gold to hedge against inflation. This paper is an attempt to study different gold investment schemes available in the market and also the investor's attitude towards the forms of gold investment.

Keywords: *Gold investment, Risk,E-Gold, ETFs.*

Introduction

Gold is one of the rarest fundamentals having unique intrinsic worth, qualities and applications. Gold has enjoyed a status as a good medium to store value, since Ancient History. Human's love for gold is as old as the recorded human history itself. As per archaeologists, humans were impressed by the gold from the very first instance of finding it. Gold was discovered at more than one place but it is difficult to tell where it was found for the first time. Some flakes of gold were found in Palaeolithic caves which are dating back to 40000 B.C. The first evidence of human's contact with gold comes from the history of Egypt. Around 3000 B.C. humans came into connection of gold. Egyptians made first use of gold as currency. One piece of gold was exchanged against two and a half pieces of silver. Afterworld war II, the Bretton Woods monetary system, a command of fixed exchange rates, was formed. It's commonly used in electronics, medicines, industries, religious ceremonials, marriages, to meet financial uncertainty and ornamentals in form of jewellery. Investors always consider gold as acrucial multipurpose asset and source of liquidity and desired form of savings. Therefore India isthe second largest importer of gold followed by China. As per WGC report India have imported 570 tonnes of gold.

The investor can invest in gold for better returns with high liquidity. A prospective investor has many forms of investment available to invest in gold by way of Gold Sovereign Bond, Gold ETF, Bullion i.e. Bars and Coins, Jewellery and numismatic coins with artistic value.

Factors Must Be Considered By All the Perspective Investor While Investing in Gold:

(i) Buying forms of gold: The perspective investor has to beconscious of the various ways of buying gold. Since ancient time Jewellery is considered to be the most conventionaland foremost form of obtaining gold in India whereas bullion bars, gold exchange trades (ETFs) and coins etc. are to be considered as other forms of investment.

(ii) Capital appreciation: Gold is very strong metal as compared to sharesthat are highly volatile.It is said to be the perfect to invest in gold will be when markets are decaling along with high inflation rate.

(iii) Current income: Investment in Gold will be profitable only in form of Gold ETFs as it generates dividend on regular interval basis.If it is held in physical form, then investor has to pay maintenance of lockers as locker charges to bank.

(iv) Liquidity: Gold is highly liquid as compared to all other forms of investments. The investor can convert it into a cash and cash equivalent as and when needed. Banks, pawn shop, NBFC's and unorganised playeroffers a jewellery loan.

(v) Risk:Gold being a highly liquid asset it does not carry much risk. It helps the investors to generates quick money by selling it or to meet short to requirement by taking loan against gold.

(vi) Convenience: Gold is very convenient form of metal. On the other hand with the per gram prices are rising, the even smallest single investment is becoming higher.

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(vii) Tax treatment: Gold suffers capital gains tax as per the IT Act. So it is better to ask your jeweller for the bill. Gold does not have any other tax benefits.

Forms of Investment in India

Jewellery

Gold coins

Gold bullion bar

GoldMutual Funds

Electronic form of Gold

Gold Certification

Gold Exchange traded Funds (ETF's)

Objectives of Study

To study different ways of investing in gold

To analyse investors perception on various forms of gold investment

Research Methodology

Present study is descriptive study in nature. In orderacquireessentialinformation; primary and secondary sources are used. Primary data comprises of questionnaire. For the purpose of the study data has been collected from 150 Individual respondents from Panvel Taluka. Secondary data contain of information collected through numerous websites, research articles, journals on gold etc.

Limitations of Study

The scope of the study is limited to Panvel Taluka.

Data Analysis And Interpretations

The present study in empirical in nature. The survey of 150 investors who are the customers of various banks in the geographical area of Panvel has been conducted and the same has revealed following results.

Table 01

Classificationof Respondents on the Basis of Gender

Gender	Number of Respondents	Percentage
Male	111	74
Female	39	26
Total	150	100

Source: Compiled from questionnaire

Table 01 shows the gender wise classification of respondents. It was found that 74 percent of the respondents are male and the rest are females. Generally males bear the financial responsibility in Indian society, and therefore they have to make investment decisions to fulfil the financial obligations.

Table 02

Age wise classification of respondents

Age(in years)	Number of Respondents	Percentage
25-40 years	42	28
40-50years	66	44
50-60years	42	28
Total	150	100

Source: Compiled from questionnaire

Table 02 shows the age wise classification of respondents. When it comes to age, it was found that 28 percent are young i.e. of age group 25-40 and 44 percent of them are in the age group of 40-50. Other than these 28 percent of them belong to age group of 50-60.

Table 03

Classification of Respondents on Basis of Occupation

Occupation	Number of Respondents	Percentage
Businessman	39	26
Private Sector	72	48
GovernmentEmployee	30	20
Farmer	9	6
Total	150	100

Source: Compiled from questionnaire

Table 03 shows classification of respondents on basis of occupation. From the above table it is clear that 48 percent of the respondents are working in private sector, 26 percent of them are Businessman, 20 percent of them are government employees, 6 percent of them are Farmers.

Table 04

Classification of Respondents on Basis of Annual Income

Annual Income	Number of Respondents	Percentage
3 Lakhs- 5 Lakhs	66	44
5 Lakhs – 10 Lakhs	54	36
10 Lakhs – 15 Lakhs	27	18
15 Lakhs – 20 Lakhs	3	2
Total	150	100

Source: Compiled from questionnaire

Table 04 shows the classification of respondents on basis of annual income. It has been found that 44 percent of respondents are with the annual earnings between 3-5 lakhs, 36 percent of them are earning 5 to 10 lakhs annually, 18 percent are earning between 10 to 15 lakhs in a year, 2 percent of them earn 15 to 20 lakhs in a year.

Table 05

Classification of Respondents on Basis of Form of Investment in Gold

Form of investment in gold	Number of Respondents	Percentage
Physical Gold	99	66
Gold ETF	30	20
Gold Mutual Funds	15	10
Gold Sovereign Bond Scheme	6	4
Total	150	100

Source: Compiled from questionnaire

Table 05 shows classification of respondents on basis of form of investment in gold. It can be concluded that the respondents prefer to invest in Physical form of gold than Gold ETF, Gold Mutual Funds and Gold Sovereign Bond. It was interesting to know that Indian individual investors prefer to invest in physical form followed by Gold ETF. It's very clear that there is lack of awareness of benefits of Gold Mutual Funds and Gold Sovereign Bond Scheme as only 10 and 4% respondents preferred this respectively.

Table 06

Classification Respondents on the Basis of Percentage of Income Invested in Gold

Percentage Of Income Invested In Gold	Number of Respondents	Percentage
Up to 25%	**138**	**92**
25-50%	**12**	**8**
50-75%	**0**	**0**
Total	150	100

Source: Compiled from questionnaire

Table 6 shows the classification of respondents on the basis of percentage of income invested in gold. Majorities of the respondents i.e. 92 percent prefer to invest up to 25% of their income in gold. This is because people prefer to invest excess part of their income. As respondents are married and majority of them are male they are the major source of family income. Only few respondents invest 25-50 % of their income in gold.

Table 07

Classification Respondents on the Basis of Factors Influencing an Investment in Gold

Factors Influencing an Investment In Gold	Number of Respondents	Percentage
Liquidity	**63**	**42**
Profitability	**45**	**30**
Safety	**42**	**28**
Total	150	100

Source: Compiled from questionnaire

Table 7 shows the classification of respondents on the basis of factors considered before making an investment in gold. Majorities of the respondents i.e. 42 percent prefer to invest because of liquidity, 30 percent of the respondents prefer for profitability, 28 percent of the respondents invest in considering safety aspect of it.

Table 8

Satisfaction of Investors on Their Previous Investment in Gold

Satisfaction	No. of Respondents	Percentage
Yes	78	52
No	51	34
Neutral	21	14
Total	150	100

Source: Compiled from questionnaire

Table 8 reveals that major portion of respondent was satisfied with the returns they got on their investment. This reflects that investment decision was taken properly. 32% of respondents were not satisfied with the returns they received on their investment. Few common reasons cited were inadequate knowledge about the instrument in which investment was made, misguided by the agent of financial company; charges applicable were not disclosed initially, etc.

Table 09

Classification of Respondents on Basis of Source of Investment Information

Sources of Investment Information	Number of Respondents	Percentage
Broker/ Financial Advisor	57	38
Financial Journals	6	4
Peer group/ Friends	75	50
Print Media	12	8
Total	150	100

Source: Compiled from questionnaire

Table 09 shows classification of respondents on basis of source of investment information. It was found that only few respondents tend to depend upon financial journals. However, the majority of the respondents i.e. 50 percent investment decisions are influenced by advice from friends and family members; 38 percent investors consult broker, for advice on investment decisions. And the rest of them allow the expert to take decision on their behalf.

Concluding Findings

- The study reveals that the investment market in India is dominated by males.
- It has been found that most of the investors are in the age group of 40 -50 years this indicating medium aged people are major in the financial investment sector.

- Majority of respondents are working in private sector organisations as compared to government organisations and self employed.

- As per the general perception, it is found respondents with higher income groups like income within range of 5-10 lakhs were found to invest more because of their available investible surplus.

- Most respondents prefer to invest up to 25% of their income in gold. As majority of respondents are male, they are the primary source of income. People invest the excess money of their income.

- We Indians believe more on physical form of gold rather than electronic and paper form. This is the reason that majority of respondents believe on Physical form of gold Like- Gold Bars, Gold Coins, Jewellery etc. As there is lack of knowledge of benefits of electronic and paper form of gold few of the respondents are considering it.

- Majority of respondents considers liquidity as a major factor while selecting the form of investment. As gold posses high form of liquidity it is preferred by majority of respondents.

- Family and friends are the important factor that influences investor's decision as 59% respondents said the same. Whereas broker is the least factor that influence investor's decision.

- Most of the investors get their information associated to investment through peer group and friends while others choose to get information from financial dealers and mass media like news paper.

Suggestions

- Investors should consider long term investment planning and financial planning.

- The balanced investment strategy is must so as to ensure better return with adequate safety.

- Investment portfolio should also be considering electronic and paper form of gold.

Conlusion

Through this research we can understand about the attitude of the investors towards gold and also there are different ways to invest in gold. Investors are less aware of the benefits of electronic forms of gold. Investors prefer to invest in gold as its most liquid asset and capital appreciating assets as well.

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An Empirical Study on ICT Enabled Smart Classrooms

Navneet Kumar*, Tanvi Kunal Thakkar** & Dr. Shankar Choudhary***

Abstract

The most important thing about learning is that no one can take it from the learner. Information Communication Technology (ICT) has an extensive array of educational initiatives across the globe. It is mostly used for delivering information to the students in the absence of fundamental teaching learning process. It is of strategic importance for many institutions for higher learning. ICT is becoming increasingly important in our daily lives and in our education system. However, the academic literature reflects the role of ICT mostly in the distance mode of education and there is very less data associated with the regular mode of management education. Present paper aims to identify this research gap through examining the role of ICT based teaching and acceptance level of students. Data has been collected through random sample survey from the colleges that are affiliated to Mumbai University and offer regular mode of management education. Student's acceptance, curriculum and mode of content delivery are the key parameters identified in the present paper in the context of improved learning and Management education development. This paper stresses the importance of Students Acceptance in empowering smart future through digitization and empirically examines the role of ICT based teaching towards improving the learning process. The challenges on implementing digital learning, updating teaching skills and transforming rigid structure of traditional education system through policy reforms and collaborative involvement of all the stakeholders (students, professors, management team, governing bodies and policy makers) are the major managerial implications. The paper concludes the extent to which these barriers affect student's performance. Overall the paper provides conceptual landscape that begins to determine the extent to which ICT in digitization can provide opportunities for students to give feedback and suggestion on new learning.

Keywords: Management education, Digitalization, Students acceptance & Learning

Introduction

The ICT is creating a remarkable change in almost every aspect of life. In the higher education sector the use of technology has become an essential ingredient for the development of education. The Indian higher education system has undergone huge expansion to become the country with highest enrolment of over 70 million students in the world (Mahajan et al., 2016). ICT has played a vital role in creating such unimaginable expansion. Virtual laboratories, education satellite (EDUSAT), Direct to Home (DTH), Online testing, e-learning platforms and various other ICT tools have inculcate inquiry based learning environment amongst students.The concept of smart classrooms involves creating in-depth learning experiences through collaborative activities, problem solving approach & interactive learning.

Technology literacy is one of the most required skills in this era of digitalization. The academic institutions need to adapt to these changes. But this change is not exclusive to technologies; it also involves the human resources and their approach towards the e-learning possibilities.There are various ICT tools/ products that are relevant to education. Some of them are:- teleconferencing, webinars, tablet based learning, email, interactive radio counseling, voice response, audio & video conferencing, CD ROMs & DVDs that are widely used for different educational purposes (Dias & Diniz, 2014).

Some of the management institutions have better access to multimedia facilities, LAN, WAN and Internet as compared to others. Many institutions are still using the traditional methods of classroom teaching. The existence of this technology gap provides better opportunities for the utility of ICT in education sector. This would enable easier access to a vast number of knowledge sources through shared networks. However many universities have faced challenges in acceptance, delivery and effectiveness of ICT based teaching-learning process (Miraz et al., 2016). In this context the present study investigates the impact of ICT based teaching and learning through smart classrooms in regular mode of management education.

Objective

To examine the role of ICT based teaching towards improving the learning process in regular mode of management education

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Literature Review

The term Information and Communication technology has been used since 1980s in the academic field but it became popular in 1997 only after it appeared in the government report in UK. The ICTs are transforming the society and the economy. It refers to a vast set of application and tools that are aimed at capturing, displaying, storing and sharing the data and information through an electronic way (Kalelo-Phiri, & Brown, 2017).There is a growing body of academic literature from researchers, educationists and policy makers that reflect the significant role of ICTs in developing the education sector. Moreover the emergence of ICT in education was in response to the increasing pressure from the labor market to produce skillful competent and appropriate manpower to survive the technological, dynamic and competitive societies at large (Kumi-Yeboah, & Boadu, (2013); Ampofo et. al, 2014).Tanye, H. A. (2017)has mentioned that ICTs may not substantially change the conventional teaching habit, but its integration has potential to stimulate, accompany and amplify a greater change.

In the work of Oblinger (2012) the challenges of today's education system had been highlighted along with its challenges ahead. It also mentioned about the impact of technology towards shaping the plethora of possibility for smart classrooms where knowledge can travel through vast, connected networks of people—and how it can lead to exponential growth.Allen & Jeff Seaman (2013) have identified in their book the importance of MOOCs (Massive Open Online Courses).The book also mentions the transition in the space of digital learning and the need for higher education institutions to implement the change.

In a study based on tablet based teaching and learning in the United states, three important pointers were proposed to the education leaders ; having a clear vision for improving instructions through technology; help the educators to imagine how the integration of technology can support those visions; supporting teachers and students for tablet based teaching & learning. They identified the earlier technologies as 'game changers" during the 1980s and 1990s and highlighted that the integration of technology is not just a matter of acquiring the hardware but it is about changing classroom practices that will improve the teaching &learning process(Daccord and Reich (2015). Another group of researchers carried out a study in Duke University Medical Center. This study compares the traditional and the tablet based teaching learning process through a tablet based computer teaching. It includes computer aided peer-mentoring workshops for students and faculties to discuss their utility in the teaching learning process (Narayan et al., 2015).

ICT for development (ICT4D) refers to the utility of technology in the field of socio-economic development, international development and human rights. Hilbert (2015) had emphasized through his work that there is no one-size-fits-all recipe for the transition towards an information society. The optimal path is region and country specific. He proposed a three dimensional conceptual framework. His theory was based on Schumpeterian innovation theory that considers innovation and technology change as the main catalyst for development. The framework highlights the interdependency among technology and various sectors like e-government, e-business, e-health, e-education and others. The vertical sections in figure 1 represent the area of application of technology like- Infrastructure, Generic services, Capacities and knowledge etc. The arrows reflect that the areas can be further expanded. It also describes about regulations and incentives as actors for positive and negative feedback of the stakeholders.
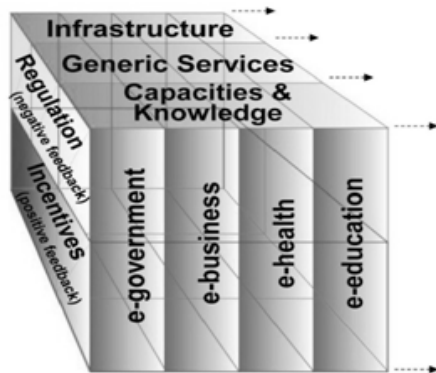
Figure 1: The Information and Communication Technology for development cube

Source: Hilbert, (2015)

Research Gap

ICTs in education are an effective and creative way to transform the ways of teaching and learning. In comparison to the developed countries the utilization of ICT in education sector is relatively limited in developing countries. Reasons for such gap includes challenges like lack of finances, poor internet connectivity, unavailability of trained staff and lack of strong policy. Mostly distance mode of education is mentioned in the academic literature. There are numerous papers and articles about the utility of ICT in the distance mode of higher education. However, there is much scope of ICT in the regular mode of education. Present study is an attempt to examine the role of ICT based teaching and learning in the regular mode of management education.

Research Methodology

This is an empirical research that deploys both primary and secondary data. Secondary data has been utilized to identify the ten parameters namely-Learning management System (LMS), Administration and management (AM), IT Staff (IT), Technology competence (TC),Course and curriculum (CC), Students Acceptance (SA), Content Delivery (CD), Faculty Training (FT), Idea of Equality (IE) and Selecting Tools (ST). The paper follows a mixed method approach with both quantitative and qualitative data. This approach to research is useful as it provides a better understanding of the research problem than either one method. **By mixing both quantitative and qualitative research and data, the researcher gains greater understanding and corroboration of each approach (Creswell, 2003).**Through random sampling technique primary data has been captured from 91 respondents. These respondents are the students of different management colleges affiliated to Mumbai University that offer full time regular mode degrees. Respondents were encouraged to identify from the given ten parameters, the most essential one and ranking it as 1st and the least preferred parameter as 10th. From the identified ranks, 18 professors/ IT heads from six different management institutions affiliated to Mumbai University were interviewed to understand their views on these rankings and the challenges associated with it.

Data Analysis

In order to identify the most preferred parameter by the students towards developing an ICT enabled smart classroom, the data frequency tables were prepared. Table1 represents that about 60% students have rankedLearning management System(LMS) as the fifth most important parameter. The LMS would act as an "actant" as per the actor network theory.Administration and management (AM) has been ranked as the sixth most preferred parameter (Table 2). 53 students have identified the importance of ICT integration in the administration and management of lectures and other student's activities.

Exclusive IT department and IT staff has been identified as the fourth most important parameter by the students (Table 3). This department would be completely dedicated for creating and maintaining the ICT integrated teaching and learning process. Having excellent technology competence is the seventh most preferred parameter by 57% of the students (Table 4). This includes three stakeholders; students, teachers and the IT staff.Having an ICT integrated course/ curriculum has been ranked in the category of first/ second/ third most important parameter for a smart classroom by all the respondents.

A revised and updated curriculum that includes the latest advances in the subject specific technology area is one the most preferred parameter (Table 5). Acceptance by students is the third most important parameter identified by the students. 72.5% students have ranked it third and the rest have identified it as the first (4%) and second (23%) most important one (Table 6). 62% students have ranked the mode of content delivery as the second most important parameter and it is ranked first by 31% students that is next only to course and curriculum (Table 7).

Faculty training towards usage and advances in the field of ICT integrated teaching is identified as the eighth most important parameter. This is inclusive of designing advance curriculum as well as delivering the lectures through ICT tools (Table 8). Idea of equality was ranked as the tenth parameter by 54% students whereas 42.9% had ranked it as the ninth parameter. This parameter was indicative of equality towards access of information at the same time (Table 9). Selecting the tools was ranked as the ninth parameter by 54.9% students. This parameter aims at implementing a tool for presenting the curriculum effectively and not as a convenient tool for fulfilling the pedagogical needs of the teachers (Table 10).
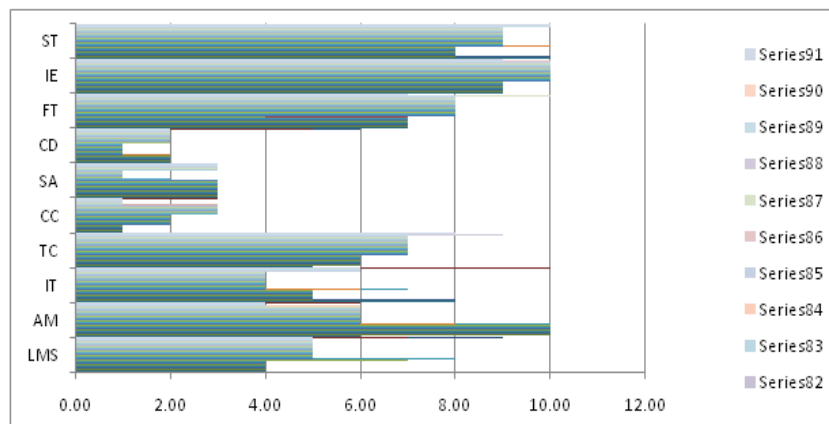
Figure 2 Ranking of the parameters by students

Source: Authors work

Figure 2 represents an overall rank of the ten selected parameters towards creating an ICT integrated smart classroom. The preferred ranks identified by the respondents are: Learning management System (LMS)- 5th, Administration and management (AM)- 6th, IT Staff (IT)- 4th, Technology competence (TC)- 7th,Course and curriculum (CC)- 1st, Students Acceptance (SA)- 3rd, Content Delivery (CD)- 2nd, Faculty Training (FT)- 8th, Idea of Equality (IE)- 10th and Selecting

Tools (ST)- 9th parameter. Further these identified ranks were utilized to discuss the challenges in implementing those changes in the management institutions through interviews of 18 faculties/ IT heads in the management institutions that were offering Mumbai University affiliated masters programs.

Findings

The results show a strong impact of advanced curriculum, inclusive mode of content delivery and acceptance by students as the most preferred parameters among the students. Dedicated IT staff and exclusive IT department to facilitate this change in the hardware and software system of the institutions is the fourth most important parameter. Lack of appropriate IT infrastructure may result in complete failure of the first three identified parameters. In this era of digitalization the Information and Communication Technology is of utmost importance in the field of management education. The traditional teaching learning techniques are no longer fit to the digital learning era with respect to design thinking, innovative approaches and understanding and retention capability of the students. Faculty training, Selecting the tools and Idea of equality were the less preferred parameters as per the respondents.Learning management system, Administration and management of the system and technology competence were average attention parameters by the students.

The interviews revealed that the faculty/ IT head respondents were appreciative of the findings from the survey data. They highlighted some of the major challenges towards creating an ICT integrated smart classrooms:Implementation of digital mode of content delivery, Updating teaching skills, Transforming rigid structure of curriculum, Collaborative involvement of all the students, teachers and IT technicians. The lack of infrastructure support in terms of hardware and software systems was indicated as the biggest challenge as it involves the top management of the institutions to provide financial resources. Human resource training for the technical staff as well as the faculties is another challenge that needs systematic and timely inputs. Merely ICT integrated curriculum cannot be implemented successfully if the mode of content delivery does not happen in the right way. This calls for a collaboration of all the stakeholders involved in this integration process which itself is a major challenge for the institutions.

Limitations

Present research is limited to the specific parameters as identified from the academic literature. Also, due to limited time availability, present research includes only 91 students and 18 faculties/ IT head from the management institutions affiliated to Mumbai University. The number of respondents and the area of study can be further expanded in all future research work. New theories and models can be tested for ICT integrated smart classrooms to suit the needs of the present digitalization.

Managerial Implications

The findings of the study and the challenges identified in the study are notable to the decision makers to understand the real need for institutionalizing ICT integrated techniques and devise a module that suits their respective field of management. The findings from the interviews of the faculty/ IT head is also indicative that to better implement this change there must be a collaborative system inclusive of three major stakeholders i.e students, teachers and the IT staff. The education policy makers and other education authorities may consider the desired transformation from the student's perspective and consider a revision in the traditional curriculum for creating a corporate ready manager. The findings are also supportive of theoretical advancement in the field of technical education in the higher education domain.

Conclusion

The adoption and utility of ICTs in regular mode of management education have a positive impact on the teaching learning process. The management students have identified that the three most important transformations needed in the present system includes ICT integrated curriculumdevelopment, easy and accessible mode of content delivery and acceptance by the students. These developments can influence and develop an environment that has profound impact on the new learning opportunities for both teachers and students.

The ease of availability and sharing of information and course material can foster better teaching and improved learning by students.This recommended integrative model for a smart classroom is represented in Figure 3.

Figure 3: Integrative model for smart classrooms

Source: Authors work

The model indicates exclusive access of the faculties and the students for the IT support through a dedicated IT department. This department would ensure availability and accessibility of timely information and course material as per the requirements

of the teachers and the students. The teachers and students would share and collaborate through the various tools of ICT for better delivery of lectures, dissemination of information, feedback, sharing of course material and advanced methods of teaching and understanding the relevant theories and concepts. It would also require regular training and workshop for keeping the students, teachers and the IT staff updated about the advances in the latest technology.

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Annexure

Table 1

Learning Management System

		Frequency	Percent	Valid Percent	Cumulative Percent
	4.00	31	34.1	34.1	34.1
	5.00	56	61.5	61.5	95.6
Valid	7.00	2	2.2	2.2	97.8
	8.00	2	2.2	2.2	100.0
	Total	91	100.0	100.0	

Table 2

Administration and Management

		Frequency	Percent	Valid Percent	Cumulative Percent
	4.00	7	7.7	7.7	7.7
	6.00	53	58.2	58.2	65.9
	7.00	1	1.1	1.1	67.0
Valid	8.00	2	2.2	2.2	69.2
	9.00	1	1.1	1.1	70.3
	10.00	27	29.7	29.7	100.0
	total	91	100.0	100.0	

Table 3
IT Staff

		Frequency	Percent	Valid Percent	Cumulative Percent
	4.00	48	52.7	52.7	52.7
	5.00	28	30.8	30.8	83.5
Valid	6.00	9	9.9	9.9	93.4
	7.00	1	1.1	1.1	94.5
	8.00	5	5.5	5.5	100.0
	Total	91	100.0	100.0	

Table 4
Technology competence

		Frequency	Percent	Valid Percent	Cumulative Percent
	4.00	1	1.1	1.1	1.1
	5.00	5	5.5	5.5	6.6
	6.00	28	30.8	30.8	37.4
Valid	7.00	52	57.1	57.1	94.5
	8.00	2	2.2	2.2	96.7
	9.00	1	1.1	1.1	97.8
	10.00	2	2.2	2.2	100.0
	Total	91	100.0	100.0	

Table 5
Course and curriculum

		Frequency	Percent	Valid Percent	Cumulative Percent
	1.00	41	45.1	45.1	45.1
Valid	2.00	25	27.5	27.5	72.5
	3.00	25	27.5	27.5	100.0
	Total	91	100.0	100.0	

Table 6
Students Acceptance

		Frequency	Percent	Valid Percent	Cumulative Percent
	1.00	21	23.1	23.1	23.1
Valid	2.00	4	4.4	4.4	27.5
	3.00	66	72.5	72.5	100.0
	Total	91	100.0	100.0	

Table 7
Content Delivery

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	29	31.9	31.9	31.9
	2.00	62	68.1	68.1	100.0
	Total	91	100.0	100.0	

Table 8

Faculty Training

		Frequency	Percent	Valid Percent	Cumulative Percent
	4.00	2	2.2	2.2	2.2
	5.00	2	2.2	2.2	4.4
	6.00	1	1.1	1.1	5.5
Valid	7.00	34	37.4	37.4	42.9
	8.00	51	56.0	56.0	98.9
	10.00	1	1.1	1.1	100.0
	Total	91	100.0	100.0	

Table 9

Idea of Equality

		Frequency	Percent	Valid Percent	Cumulative Percent
	7.00	1	1.1	1.1	1.1
	8.00	1	1.1	1.1	2.2
Valid	9.00	39	42.9	42.9	45.1
	10.00	50	54.9	54.9	100.0
	Total	91	100.0	100.0	

Table 10

Selecting Tools

		Frequency	Percent	Valid Percent	Cumulative Percent
	4.00	2	2.2	2.2	2.2
	8.00	28	30.8	30.8	33.0
Valid	9.00	50	54.9	54.9	87.9
	10.00	11	12.1	12.1	100.0
	Total	91	100.0	100.0	

Is India Prepared For Cashless Economy?

B. Ramesh* & Dr. Syed Azhar**

Abstract

India is a developing and fastest emerging economy of the world. With the increasing pace of modernization, the economy is moving to towards globalization concept. Cashless economy enables the curb black money, corruption and boost tax payments by citizens of the country, thereby improving the revenue of the government. The objective of the study is to evaluate the position of cashless economies of the world and challenges in implementation of Cashless intensive economy and further suggest steps for improvement of digital transactions. India is taking initiatives such as "Digital India Programme" to promote digital payments. There are numerous challenges hinder the implementation of cashless economy due to varied demographics of the citizens such as informal business structure, financial condition etc. the study suggest that the government should promote digitalization by creating infrastructure required for digital payments, educate common people and businessmen of digital payment benefits, conduct workshops at rural and urban areas etc.

Keywords: Cashless Economy, Digitalization, Demonetization, Banking

Introduction

India is a developing and fastest emerging economy of the world. It is rapidly changing its contours from agricultural economy to manufacturing and service economy. With the increasing pace of modernization, the economy is moving to towards globalization concept. The development of an economy is always measured by availability of infrastructure such as education, banking services, transport, roads, electricity etc. with the development and modernization; the economies adopt digitalization in terms of business transactions. With the developments in E-Commerce, the business adopts E-payments through debit & credit cards, point of sale machine, mobile wallets, internet banking etc. The changing trends in businesses are leading to a cashless economy.

A cashless society or economy can be defined as the economy where the transactions of financial nature are digitally performed between the transacting parties instead of hard cash in the form of physical banknotes or coins.Usually transaction between business to business and business to consumer are conducted by electronic transfer of money. It is indeed important to mention that in cashless economy no transactions are done though cash. According to a India's reserve bank and commercial banks face a grand total of Rs. 21,000 crores (US $3.5 billion) in currency operations costs annually (Chakravotri & Mazzotta, 2013). This cost can be reduced by adopting cashless transactions to a large extent.

Cashless Economy: World at Glance

There are countries namely Sweden, Norway, Denmark, Belgium France, United Kingdom, Somaliland, Kenya, Canada, South Korea etc. the countries which are not cash intensive economies are Sweden -3%; Belgium -7%, Denmark - <5% transactions are done by cash payments. It indicates that these economies have more than 90% of transactions using cashless digital payments. In case of Norway, even street food can be bought by making digital transactions.

On the other hand, there are many instance where are countries are either in the process of adopting or planning for cashless transactions. Vietnam initiated a move to become 90% cashless retail economy by the year 2020.

How does Cashless Society Help

In India, the transactions for purchase of goods or services are made by cash rather than digital payments. In case of cash payments, the taxes are not paid properly and it contributes to tax avoidance. In fact the businesses do not pay their taxes in proportion to their earnings or income. Cashless economy enables the curb black money, corruption and boost tax payments by citizens of the country, thereby improving the revenue of the government.

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Objective of the Study

- To understand the position of cashless economies of the world.
- To evaluate the position of India in implementation of Cashless intensive economy.
- To suggest steps for improvement of digital transactions in India.

Methodology

The study is descriptive in nature. The study is based on secondary data using articles, research papers and reports in news papers and journals.

India's Initiatives toPromote Cashless Economy

According to an International Labor Organization, Deutsche Bank Report (2016), India is one of the most cash intensive economies of the world. The currency to GDP ratio is 12.2%, which is higher than Brazil, Mexico and South Africa.Further the Reports add that India growth in short term in informal sector may be hampered as majority of transactions are made by cash.

King cash
The Indian government's move to disincentivize cash deals poses a risk to near–term growth.

Currency/GDP (in %)

India	Mexico	Brazil	South Africa
12.2	5.7	4.1	3.7

Source: International Labour Organization, Deutsche Bank
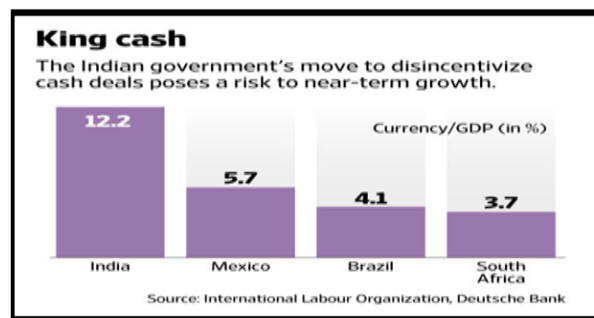
To create a cashless economy, the Government of India's has been aggressively pushing digital payments, which had gained momentum during and thereafter demonetization (Vishwanathan, 2017). Furthermore, a decline in electronic payments is being observed as reflective of the improved cash availability situation over the last couple of months since 500 and 1000-rupee notes were scrapped on November 8 last year (Singh & Mukul, (2017).The Government of India initiated a "Digital India programme with a vision to transform India into a digitally empowered society and knowledge economy (Cashless India, 2017). In India, there are various digital payments methods such as banking cards (Debit/ Credit / Cash / Travel / Others), Bank prepaid cards, unstructured supplementary service data (USSD), Point of sale, Aadhaar enabled payment system (AEPS), Internet banking, Mobile banking, Mobile wallets, Micro ATMs, unified payments interface (UPI) etc.

In March 2017, the Government of India hasinitiated a policy to levy service charges on all cash transactions above Rs 2 lakh as compared to earlier amount of 3 lakhs. This move will discourage citizens to use digital mode of payments rather than cash transaction.

On the other hand, E-Commerce based private players enterprise such as Paytm, Amazon, Snap deal, flip kart etchave been cashing on their businesses though digital payments. Discounts are offered to customers who make payments through debit or credit cards, EMI's, wallets or net banking and no discount is offered to transactions on cash on delivery. This is driving the purchasers to opt for digital transactions instead of cash payments. The report identified e-retailing, online travel, digital advertising market and electronic payments as segments that could "potentially catalyze domestic companies into multi-billion dollar businesses" (Press Trust of India, 2015). The Minister of Electronics and IT stated that infrastructure of digital payments in India is expected to increase three-fold by the end of 2017 with almost five million electronic point of sale (PoS) machines in the market. This will enable the business community to enhance digital transactions.

Challenges in Implementation of Cashless Economy

In Indian economy, the businesses are done informally and small proportion is formal structured in nature. The informal sector is characterized by un-taxed, un-legislated, un-regulated, un-banked and majority of employment is unskilled in nature whereas formal sector is characterized by tax payers, regulated, legislated and skilled employment. The informal sector mainly consists of over 100 million small firms which are estimated to account for 40% of its economy and approximately 80% of all its jobs" (Daunton, 2017). They mostly make payments by cash. In this case, it is cumbersome task as these small businessmen and most common people lack financial literacy.

There are few cases where cash transaction may not be effective in practice. There are few cases discussed below:

- In India, majority of transaction are done by cash. According to CLSA Report, about 59% of transactions are cash based. Post demonetization of currency, India witnessed increase in digital transactions but however, in August 2017, 10 months after the note ban, debit and credit card transaction stood at Rs 36,000 crores each, having come down substantially from the heights they achieved, but not falling back to the pre-demonetization lows.

- Customers are making payments through Paytm at petrol stations. As we all know that there is a sign board which restricts customers from using mobile near petrol stations because it may prove to be hazardous and fatal risking the life of people.

- Small vendors where the cost of good or service is small such as Tea stalls, Street Foods,lid-cap shopand perishable goods sellers such as eatables (fish vendor, fruit vendors, , vegetable vendor) etc. Small vendors are not comfortable with the payments of many continuous small denominations. In case of small tea stalls, a tea my cost around Rs 5-10, in this is it practically possible to accept or pay through digital methods of payments.

- According to World Bank Report (2016), the rural population contributes to 66.84% of total population. The rural society mainly depends on agriculture. They still do not have proper access to electricity, improper transaction and connectivity, inadequate banking facilities etc. Rural area literacy percentage is also very low due to this many rural people and may resist to implementation of cashless economy. Further most of the rural population, do not have awareness and access to internet. Therefore it is highly impossible to implement digitalization of cash transactions due to low literacy, financial knowledge and adequate infrastructure.

- People who are opting for public transport specially bus and rail transport passengers may find it hard to make cashless payments through digital mode. Whether rural or urban,the transport mode is heavily occupied or over loaded with passengers and the collection of ticket charges may not be possible easily. But for long journey, it can be easily implemented and accepted without many problems.

Steps for Implementation of Cashless Transactions in India

- To creating infrastructure to enable digitalization of receipts and payments. Point of sale machine can be offered at low price or distribute freely to small businesses at both rural and urban areas to promote cashless transactions.

- To educate common people and businessmen with the benefits and usage of cashless or digital transactions. They should be educated the process of carrying various digital payments methods.

- Workshops can be conducted at district, rural and urban areas to make awareness about cashless transactions and its benefits.

Conclusion

India is a one of the most emerging economies of the world. There are many countries which have successfully implemented and created cashless or digitalization of business transactions such as Sweden, Norway, Denmark, Belgium France, United Kingdom, Somaliland, Kenya, Canada and South Korea. Furthermore, the government of India in the year 2017 has initiated programmes for making India a cashless economy. It has implemented programmes such Digital India Programme to promote and improve the use of digital payments. On the other hand, the E-Commerce is gaining momentum in the competitive world of businesses. The author suggests that further research work can be carried out on the specific problems of small scale vendors and businessmen in implementation of digitalization of business transactions.

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Awareness and Investment in Mutual Funds Among the Investors in Panvel (Raigad) area.

Ms. Veena Chavan* & Dr.Govind Shinde*

Abstract

Mutual Funds are one among the most attractive investment avenues in the current market situationThis paper aims at studying the awareness level about mutual funds among the investors and their investment behaviour.Investors seek different information before investing in mutual funds such as past performance of fund, Rating given by credit rating agency (CRISIL, ICRA etc),Asset Management Company, Expert advice. This paper aims to study, which information about the mutual fund is sought by the Panvel based investors before investing in mutual funds and the types of mutual funds preferred. The study was conducted on a sample of 100 respondents selected randomly from Panvel Muncipal Corporation Area. The results were drawn by using statistical tools such as Chi square test .The results of the study shows that, majority of investors were aware about the Mutual Funds but the depth of awareness was low. Hence the investors in mutual funds were considerably low as compared to the awareness level. Among them more female investors invested in Mutual funds as compared Male investors. It was also observed that chances of investing in mutual funds increased as the income of the investor increased.

Key words:Mutual Fund, Awareness, Investment, Digital media, Online banking, Investors

Introduction

Mutual fund is a portfolio of securities designed by an investment company which pools money from different investors and invests that money in different investment avenues such as shares, bonds, gold, money market instruments etc. according the objective of the fund. Most of the people are not financially literate or do not have required amount of time to dedicate to do financial research to find out which company shares or debentures are good for investment. In such a situation, mutual funds are better avenue to invest and can rely on professional knowledge of fund managers. Interest rates on bank deposits are decreasing day by day(currently 6% in a scheduled bank) but inflation rate is on continuous rise. Hence many a times, the interest paid on bank deposits is eaten up by rate of inflation prevailing in the economy, leading to no return or sometimes negative return when we calculate the inflation adjusted return. Mutual funds are one of the investment options which can generate higher returns and can help to beat inflation.

Investment in Mutual Funds has variety of choices as there are a lot of types of Mutual fund schemes available in the market such as Equity Fund, Debt Fund, Balanced fund, Money market fund, Retirement Fund to name a few, to match different investment objectives. Awareness about mutual funds is increasing day by day by the use of different digital media and print media by the financial institutions. This paper aims to identify the major sources which are spreading awareness about mutual funds in the target population. In today's digital world, Mode of investment in mutual fund has also become simple by availability of various digital modes for payment as direct debit of SIP, Online banking, mobile banking etc. This paper aims to identify the awareness level of mutual funds from different sources.

Digitization -A positive Environment for Mutual Fund Industry

Basic requirement for investing in mutual fund is having a bank account. Pradhan Mantri Jan Dhan Yojana(PMJDY) , being national mission has contributed tremendously towards financial inclusion by bringing considerable mass of population under banking system. PMJDY has led opening of more than 30 crore new bank accounts. Mutual fund industry has as opportunity to tap this market.

Digital India being flagship programme of Government of India , there is a wide scope for mutual fund industry to increase awareness through digital media and en cash the increase in number of bank accounts & digital mode of payments towards increase in mutual fund investments.

In mobile phone usage India is No # 2 in the world as per BCG report. Mutual fund industry has great opportunity to increase awareness by utilising such high mobile penetration by the way of circulating small documentary on mutual fund awareness in local languages.

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Literature Review

Singh and Vanita (2002)in the paper "Mutual Fund Investors' Perceptions and Preferences-A Survey" studied the investors' preferences and perception towards mutual fund investments by conducting a survey of 150 respondents in the city of Delhi. The study had focussed on 1) the basic objectives form investments and average time horizon; 2) investment experiences; 3) risk, return, safety and diversification; 4) preferences of financial assets and investment schemes of mutual funds. The findings of the research were that the investors' preferred to invest in public sector mutual funds with an investment objective of getting tax exemptions and stayed invested for a period of 3-5 years .The investors evaluated past performance before investing. The study further concluded by saying that majority of the investors were dissatisfied with the performance of their mutual fund.

Mr. Ankit Goel, Dr. Rajendra K. Khatik (2017), study showed that majority of investors had heard about mutual funds but still an important fraction of them have not initiated to investment because of having lacking in full knowledge of mutual funds. The analysis further revealed that majority of respondents showed preference towards investment in mutual funds in near future to get better returns. The paper suggested that companies and government should come forward to increase awareness among investors and train the advisors to build more confidence among investors to invest in mutual funds.

Simran Saini et al.(2011),Study shows the investor's perception about financial advisors/brokers reveals that, majority of respondent's perceived, financial advisors and brokers are more interested in their own incentives (36.93%) provided to them by the mutual fund companies for selling more mutual funds

Singh J. and S. Chander. (2006) study "Investors' Preference for Investment in Mutual Funds: An Empirical Evidence." Published in *The ICFAI Journal of Behavioral Finance,2006* pointed out that, since interest rates on traditional investments like public provident fund(PPF), national saving certificate(NSC), bank deposits, etc. are falling, it is difficult to choose right investment avenue by the retail investor. Direct investment in capital market is a risky proposal due to lack of knowledge, and keeping money in saving schemes or fixed deposits is not advisable due to its low returns. One of the alternatives is to invest in capital markets through mutual funds. This helps the investor to avoid the risks involved in direct investment considering the state of mind of the general investor. this article figured out the preference attached to different Investment avenues by the investors; the preference of mutual funds schemes over others for investment; the source from which the investor gets information about mutual funds; and the experience with regard to returns from mutual funds. The results showed that the investors considered gold to be the most preferred form of investment, followed by NSC and Post Office schemes. Hence, the basic psyche of an Indian investor, who stillprefers to keep his savings in the form of yellow metal, is indicated. Investors belonging to the salaried category, and in the age group of 20-35, years showed inclination towards close-ended growth (equity-oriented) schemes over the other scheme types. A majority of the investors based their investment decision on the advice of brokers, professionals and financial advisors. The findings also revealed the varied experiences of respondents regarding the returns received from investments made in mutual funds.

Dr. Ravi Vyas(2012), conducted study on mutual fund investor's behavior and perception in Indore city. It was found that awareness about mutual funds was less hence investors relied upon bank and post office deposits as investment avenues. Most of the investors used to invest in mutual fund for not more than 3 years and they used to quit from the fund which was not giving returns as expected. Equity option and SIP mode of investment were on highestpreference in investors' list. It was also found that maximum number of investors did not analyze risk in their investment and they were depending upon their broker and agent.

Objectives of The Study are

1. To find out awareness level about mutual funds among Panvel based investors.
2. To study the different sources of spreading awareness about mutual funds
3. To identify the level of investors in mutual funds among Panvel based investors.
4. To study the information sought/ looked for while choosing the Mutual Fund.
5. To study the association between gender and chances of investing in mutual fund.
6. To study the association between income and chances of investing in mutual fund.

Hypothesis

H1: More Female investors invest in Mutual Funds as compared to Male investors.

H2: There is an association between Risk profile and Type of mutual Fund invested.

H3: Higher the income more will be the chances of investing in mutual fund.

Research Methodology

Research Design : The research design is a sample survey of investors or potential investors in mutual funds.

Scope of Study : The scope of the study is to find the awareness level of mutual funds as well as the investor behaviour towards investment in different types of mutual funds. The study also includes the factors which are considered by investors while choosing a Mutual fund. The study was conducted on a sample of 100 respondents who were selected randomly from Panvel Muncipal Corporation Area.

Variables in this Study are as Follows

Independent variables

- Awareness about mutual funds
- Sources of awareness
- Information sought / looked for before investing in mutual fund.
  - Past performance of fund
  - Rating by CRISIL / CARE / ICRA etc
  - Asset Management Company
  - Expert advice & tips
- Personal Characteristics:
  - Gender
  - Income

Dependent Variable

- Investment in different types of Mutual Funds

Sampling Unit: The population that was targeted consisted of investors or potential investors from Panvel Muncipal corporation area who had an income source.

Sample Size : The sample targeted was for 120 respondents. But the valid responses were about 100 which has been considered for the study.

Data Type: Primary Data.

Tool of Data collection : Structured Questionnaire.

Sources of Data : The present study is majorly based on the primary data collected from Panvel Muncipal corporation area. Secondary data also has been used whenever required from published reports .

Statistical Tools & Techniques Used

- Data was analysed through Statistical Package for Social Science (SPSS) version 20.
- Data was gathered through structured questionnaire in order to meet the objective of the study.
- **Chi- square Test** :In order to analyse the data, statistical tool such as Chi square Test has been used to find the association between the independent variable Gender on dependent variable investment in Mutual Fund.This test is used when both the variables are categorical in nature.

Data Analysis

Data was analysed using SPSS package to draw meaningful results. The results were interpreted and details of the same are mentioned below after each table or graph.

Table 1 : Awareness of Mutual Funds

Response	Number of Respondents	Percent
Yes	73	73.0
No	27	27.0
Total	100	100.0

Above Table1 shows the awareness level of respondents from Panvel about the mutual funds. It shows that 73% of investors are aware about mutual funds as an investment avenue. Awareness level of Mutual funds is fairly good.
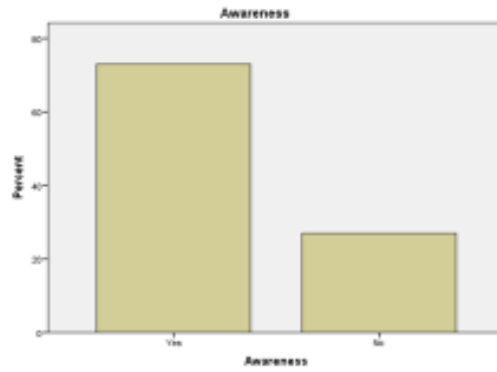
Graph1: Awareness on Mutual Fund : Shows that majority (73%) of respondentsin Panvel were aware about mutual funds.
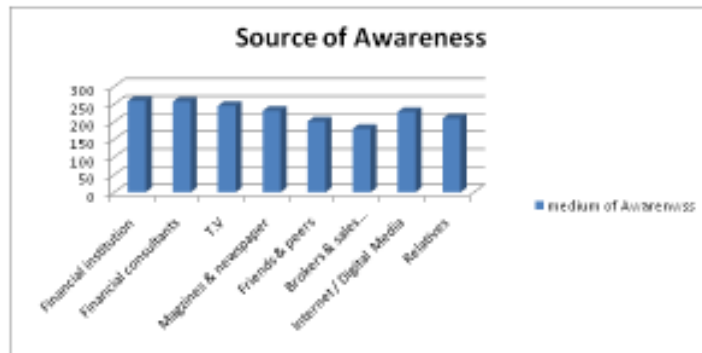
Graph 2: Source of Awareness

Eight Mediums of awareness about mutual funds were listed which included Financial institutions and Financial consultants, TV, Newspaper, Friends and peer, Brokers & salespersons, & Digital Media and Relatives. During the study it was seen that Majority of awareness about mutual funds was through financial institutions and consultants, TV, Newspaper & Digital Media. The potential of spread of awareness by digital media is very high as compared to the current level which can be utilised by mutual fund industry.

Table2: Invests in Mutual Fund

Response	Number of Respondents	Percent
Yes	34	34.0
No	66	66.0
Total	100	100.0
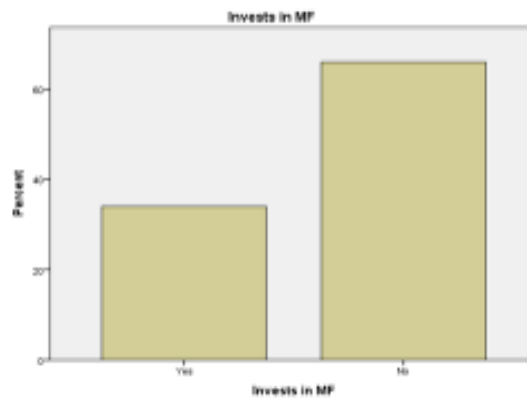
Table 2&Graph 3: Invests in Mutual fund: shows majority of respondents (66%) do not invest in mutual funds. Only 34% invest in mutual funds, in spite of 73 % of respondents being aware of mutual funds. This shows that awareness is one of the factor but not the only factor which is affecting investments in mutual funds. There are other factors which are affecting mutual fund investment. This also shows that, even though the respondents are saying they are aware about

mutual funds, their depth of awareness is low on aspects of different types of mutual funds, associated risks and returns. Hence their level of awareness has not given them the confidence to invest in mutual funds.

Table 3: Invests in MF * Res_Gender

			No. of Respondents		Total
			Females	**Males**	
Invests in MF	Yes	No. of Respondents	16$_a$	18$_b$	34
		% within Res_Gender	47.1%	27.3%	34.0%
	No	No. of Respondents	18$_a$	48$_b$	66
		% within Res_Gender	52.9%	72.7%	66.0%
	Total	No. of Respondents	34	66	100
		% within Res_Gender	100.0%	100.0%	100.0%

Each subscript letter denotes a subset of Respondent's Gender categories whose column proportions do not differ significantly from each other at the .05 level.

Table 4: Invests in MF * Res_Gender

Chi-Square Tests

	Value	**Df**	**Asymp. Sig. (2-sided)**	**Exact Sig.) (2-sided**	**Exact Sig. (1-sided)**
Pearson Chi-Square	3.915[a]	1	.048		
Continuity Correction[b]	3.083	1	.079		
Likelihood Ratio	3.845	1	.050		
Fisher's Exact Test				.074	.040
N of Valid Cases	100				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.56.

b. Computed only for a 2x2 table

All respondents who are aware does not imply they all invest in mutual fund. Among the people who were aware, it was further analysed, how many investors invest in mutual funds. It was seen that 47 % Female invest in mutual Funds as compared to 27 % male.(Among the people investing in mutual funds, it was further analysed how many are male & female investors)

Chi-square value shows significance value = 0.040 < 0.05. so there is a significant difference between Male and female with respect to investment in Mutual Funds . More female investors are investing in Mutual Funds as compared to male investors.

Null Hypothesis is rejected and following research hypothesis is accepted.

H1: More Female investors invest in Mutual Funds as compared to Male investors.

This implies that, the Male investors invest in other avenues also other than Mutual funds.
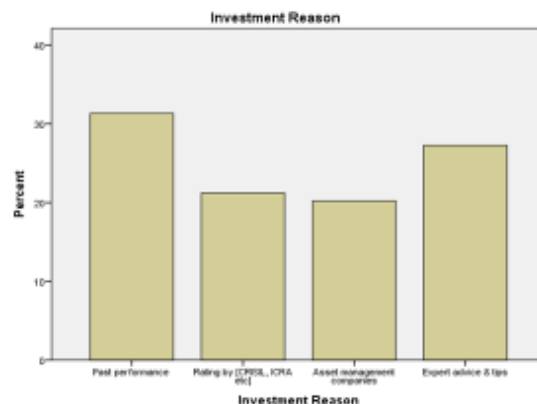
Graph4: Investment reason

The study also focussed on identifying the factors which are studied by the investors before deciding the right mutual fund to invest.It was seen that,Investors look at past performance of mutual funds and choose those mutual funds which have given good returns in the past. Investors also take in to consideration of expert advice or tip before choosing the right Mutual Fund to invest.
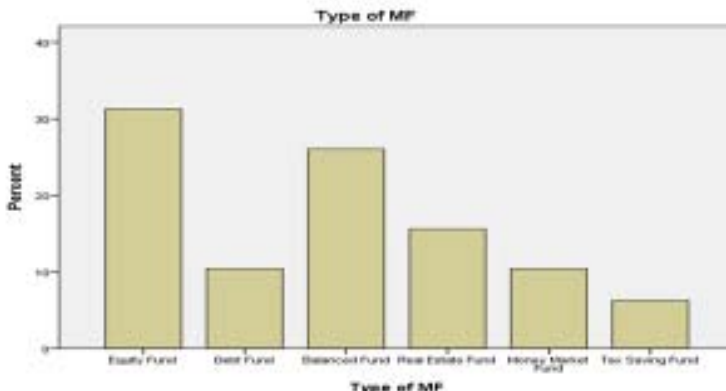
Graph 5: Type of Mutual fund invested

The study also tried to check which are the types of mutual funds which are being chosen for investment among Equity Fund, Debt fund, Balanced Fund, Real Estate Fund, Money Market Fund and Tax saving fund.

The study revealed that, most of the Mutual fund Investments is found in Equity Fund and Balanced Fund rather than other types of funds

Further cross tabulation was done between Risk Profile and Type of MF invested to see if there is any association.

Table 5: Type of MF * Risk Profile

			Risk Profile			
			1 Low risk/ low Return	**2 High Risk/ High Return**	**3 Moderate Risk/ Moderate Return**	**Total**
Type	1 Equity Fund	No. of Respondents	4	9	17	30
of MF		% within Risk Profile	21.1%	23.7%	43.6%	31.2%
	2 Debt Fund	No. of Respondents	1	9	0	10
		% within Risk Profile	5.3%	23.7%	0.0%	10.4%
	3 Balanced Fund	No. of Respondents	5	15	5	25
		% within Risk Profile	26.3%	39.5%	12.8%	26.0%
	4 Real Estate Fund	No. of Respondents	1	4	10	15
		% within Risk Profile	5.3%	10.5%	25.6%	15.6%
	5 Money Market Fund	No. of Respondents	4	1	5	10
		% within Risk Profile	21.1%	2.6%	12.8%	10.4%
	6 Tax Saving Fund	No. of Respondents	4	0	2	6
		% within Risk Profile	21.1%	0.0%	5.1%	6.2%
Total		No. of Respondents	19	38	39	96
		% within Risk Profile	100.0%	100.0%	100.0%	100.0%

Table 5: Type of MF * Risk Profile .It was found that even the investors in moderate risk profile category have their maximum investment in equity fund. That means the portfolio of MF products is not matching with their risk profile. In earlier analysis it was found that the investor believes in expert advice and tips while choosing the type of fund to be invested

This indicates miss-selling of MF products by misleading tipsOr the investor is not having appropriate knowledge about characteristics of different types of mutual funds.

Above table also shows Tax saving fund is the least preferred fund as it has a lock in period. Only those investors who need to save tax, invest in such mutual fund. Aggressive investorswho are in the category of High Risk / High return are not investing in tax saving fund.

Table 6 : Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**37.495[a]**	**10**	**.000**
Likelihood Ratio	40.530	10	.000
Linear-by-Linear Association	2.026	1	.155
N of Valid Cases	96		

a. 11 cells (61.1%) have expected count less than 5. The minimum expected count is 1.19.

Chi-square test result shows p value is significant 0.000> 0.05. It shows there is a significant relationship between Risk profile of the investor and the type of mutual fund invested.Therefore the following research hypothesis is accepted.

H2: There is an association between Risk profile and Type of mutual Fund invested.

Table 7: Annual Income Range * Invests in MF

				Invests in MF	Total
				1 Yes	2 No
	Below Rs 4lakh	No. of Respondents	2_a	16_b	18
		% within Annual Income Range	11.1%	88.9%	100.0%
	Between Rs 4 to Rs 7 lakh	No. of Respondents	12_a	26_a	38
		% within Annual Income Range	31.6%	68.4%	100.0%
Annual Income Range	Between Rs 7 to Rs 10 lakh	No. of Respondents	17_a	17_b	34
		% within Annual Income Range	50.0%	50.0%	100.0%
	Between Rs 10 to Rs 15 lakh	No. of Respondents	3_a	2_a	5
		% within Annual Income Range	60.0%	40.0%	100.0%
	5 Above 15 lakh.	No. of Respondents	0_a	5_a	5
		% within Annual Income Range	0.0%	100.0%	100.0%
	Total	No. of Respondents	34	66	100
		% within Annual Income Range	34.0%	66.0%	100.0%

Each subscript letter denotes a subset of Invests in MF categories whose column proportions do not differ significantly from each other at the .05 level.

Table 7: Annual Income Range * Invests in MF : Above tableit can be observed that, when the income is below Rs.4 lakh , investors in mutual funds were11%. As the income increased to Rs 4 to 7 lakh, investors in mutual funds also increased to nearly 32% . and so on. Hence , it can be seen that chances of investing in mutual funds increases as the income of the investor increases.

Table 8:(Annual Income Range * Invests in MF) Chi-square

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.262[a]	4	.016
Likelihood Ratio	14.387	4	.006
Linear-by-Linear Association	2.195	1	.138
N of Valid Cases	100		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is 1.70.

Table 8:(Annual Income Range * Invests in MF) Chi-square:Above table of chi square test shows sig = 0.016 < 0.05 . So the null hypothesis is rejected and the following research hypothesis is accepted.

H3: Higher the income more will be the chances of investing in mutual fund.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Nominal by Nominal	Phi	.350			.016
	Cramer's V	.350			.016
N of Valid Cases		100			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Table 9:(Annual Income Range * Invests in MF) Symmetric Measures:In the above table ,as the value of significance = 0.016< 0.05, There is a significant difference in chances of investing in mutual fund among different income groups . Also there is a correlation between Annual income and chances of investing in mutual fund. But the correlation is weak as the value of Phi =0.350 and Cramer's V =0.350 which is below 0.5.

Findings

- It was found that more female investors resort to mutual fund investments as compared to male investors. This implies more male investors invest in other investment venues rather than mutual funds such as direct equity etc.

- Among the different types of mutual funds , Equity and Balanced mutual funds are most preferred for investment by the Panvel based investors.

- It was also seen that as the income of investor increased, the chances of investing in mutual fund also increased

Summary of Hypothesis Testing

Sr.No	Hypothesis	P value	Accepted /Rejected
1	H1: More Female investors invest in Mutual Funds as compared to Male investors.	0.040	Accepted
2	H2: There is an association between Risk profile and Type of mutual Fund invested.	0.000	Accepted
3	H3: Higher the income more will be the chances of investing in mutual fund	0.016	Accepted

Conclusion

The study showed that there is wide awareness about mutual funds. But the investors still do not have adequate knowledge about different characteristics of Mutual funds, risk associated and suitability as per client profile. Hence it was seen that the investors in mutual funds were less as compared to its wide awareness. Also it was revealed that investors were not investing in right mutual fund schemes as per their risk profiledue to their inadequate knowledge about the same.Digital media has a vast potential and can play a major role in increasing awareness and educating people about the different kinds of mutual funds which are available to match varied needs.During the data analysis it was also observed that higher the income, more the chances of investing in mutual funds as there will be more money available to invest. Digitization also has made mode of investment in mutual funds easier. Investors can buy mutual funds online through net banking, direct debit instructions to bank etc. Digitization has created a very conducive environment for investors and mutual fund industry. If investors are educated on appropriate knowledge on mutual funds, huge investments can be seen in mutual funds which can create a win win situation for investors as well as mutual fund industry.

There is a further scope to the study to consider other factors apart from awareness& income such as distribution of mutual funds , amount of savings, financial goals etc. which also affect mutual fund investments.

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Microfinance: - A powerful Tool to Fight Poverty

*Prof. Kartik S. Mhavarkar**

Abstract

According to World Bank, In India almost 70 percent of its population is a rural population where 60 percent of this depends on farming, cultivation activities. The term micro-finance candefine as; it is a tool used to provide financial services to the poor segments mainly, loans, and savings. Presently microfinance practises in India not only restricts up to loans and savings but increasingly other advanced products such as Insurance, Money transfer, Pension and Incentives. And hence, Microfinance plays an important role in providing financial services to the poor as well as low income groups. In world wild, The importance of micro-finance in the developing countries like India cannot be impede, where a huge number of population is below poverty they have an idea how access to regular banking facilities.Many corporates, trusts and other financial institutions are tied up in providing micro finance services to the poor households as a reciprocal to the banking system. The main reason behind writing this research paper is, researcher want to know the trend of microfinance in Indian continental andhighlighted factors which are responsible for attracting poor segment of people for investment in Self Finance Groups (SFG's) and the trend analysis of SFG as an investment option.

***Keywords:** - World Bank, Micro-Finance, Money Transfer, Self-Finance Groups(SFG's)*

Introduction

Few years back in India, theterm***Micro Finance*** used for main purpose i.e. availability of loans to those who are lacing in accesses of normal banking facilities such as poor households, small entrepreneurs, and small businesses. There were two main channels for the providing financial services to such category people,firstprovide relationship banking services for individual entrepreneurs as well as small businesses; and second one wasuse of group-based models, where several entrepreneurs could come together and apply for loansand other services as a group. Things get better over a time, the term microfinance has emerged as a new definition by keeping main objective that make availability of quality and advanced financial products as well as services to all,especially poor and socially marginalised people, households, as well as small entrepreneurs. It not only includes traditional credit and saving facilities but also includes Insurance, Pension, Money transfer, payments related services such as incentives etc. In the context of Indian subcontinents, Microfinance considered as a development tool which provides financial services to the poor and socially marginalised people such as saving accounts, Insurance funds, and credit so they can increase their income and improve their standard of living.

During 1980's, the existing banking policies were not convenient to fulfil the financial needs of poor. For borrowings or earnings they usually turn to unorganised sector. NABARD recommended alternative procedures to save the poor from the grip of moneylenders. Thus microfinance was introduced in banking sector. Microfinance is a type of financial service which includes deposits, loans, payment services, money transfers, insurance, savings, and micro-credit in a broad range to support the poor people and low income individuals. In 1972, *Ela Ramesh Bhatt* who was born in Ahmedabad has first initiated women's cooperative bank, name SEWA i.e. *Self Employed Women's Association* of India. She served microfinance movements for low-income independently employed women workers. With over 2 million participating women, SEWA is the largest organization in the world as well as largest non-profit making organisation in India. The main goal of SEWA is to secure women so she can save family in income, food health and shelter point of view. *Muhammad Yunus*, a Nobel Prize winner, had introduced the concept of Micro-credit in Bangladesh with setting up "*Grameen Bank*".

According to Suresh Tendulkar Committee report, the population below the poverty line in India in 2009-2010 was 354 million i.e. 29.6% of the population and that was in 2011-2012 was 269 million i.e.21.9% of the population. The Rangrajan Committee said in 2014 that the population below the poverty line in 2009-2010 was 454 million i.e.38.2% of the population and in 2011-2012 was 363 million i.e.29.5% of the population. Deutsche Bank Research estimated that there are nearly 300 million people who are middle class. If former trends continue, India's share of world GDP will significantly increase 8.5% by 2020. In 2015, around 170 million people, or 12.4%, lived in poverty (defined as $1.90 (Rs 123.5)), a reduction from 29.8% in 2009. Within this framework, various initiatives have taken by government of India. Microfinance started used as a powerful tool for reducing poverty and development of socio- economy. Hence in

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present days Microfinance playing a vital role for improving the standard of living of poor and socially marginalised people. In India, Microfinance practice in the beginning started by NABARD in 1992 as a pilot project for Self Help Group (SHG) – Bank Linkage Programme (SBLP). This programme was very successful and has also developed successfully microfinance model in India. In present era, in India Microfinance facilities are even provided by commercial banks, Regional Rural Banks (RRBs), the SHG's, the SFG's cooperative societies and institutions (MFIs) that take various forms, including those of NGO's and Non-Bank Financial Institutions (NBFI's). Banks and NBFI's are governed by the Reserve Bank of India (RBI), SHGs are regulated by NABARD, and the cooperatives are governed by Registrar of Cooperative Societies (RCS) etc.

Objectives of the Study

1. Critical analysis of currenttrend of microfinance in India.
2. To understand factors responsible for attracting poor segment people to Microfinance.

Research Methodology

To prove mentioned objectives, researched has collected data from primary sources based on questionnaire. And for second objectives, data has been collected by researcher from various secondary sources such as reports published by financial institutions etc. For collection of primary data researcher has selected 60 respondents from various Self Finance Groups (SFG's) specially located in Thane area. Secondary data have collected through e-books, e-journals, and statistics available on internet.

Data Analysis and Interpretation

To analyse the *1ˢᵗ objective this study i.e. critical analysis of current trend of microfinance in India*, researcher has taken some points as follows:-

1. Region wise distribution of no. of SHG's with saving linkage (%)

Yr	North East Regin	Northern Region	Central Region	Western Region	Eastern Region	Southern Region
2013-14	4.26	4.92	3.23	12.07	19.77	49.75
2014-15	4.34	4.69	10.62	12.23	19.81	48.32
2015-16	5.44	4.98	10.32	12.88	21.51	44.87

(Table No.1:- Source NABARD Report)
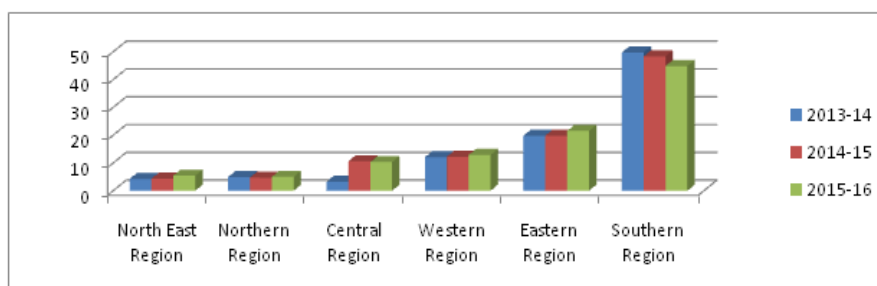
(Graph No.1:- Region wise distribution of No. of SHG's with saving linkage (%))

Interpretation: -Above table and graph show, region wise distribution of SHG's in Indian Subcontinent. It showing saturation in the scope of development of new SHG's and rationalisation of data by banks, resulted decline trend of saving linked SHG's specially in Southern region. Otherwise, all states in in North East, Northern, Central zone showing increasing trend of formation of SHG's with saving linkage during 20013 to 2016.

2. Region-wise total number of SHGs during 2013-16.

Regions	2013-14	2014-15	2015-16
North East Region	16201	18791	26037
Northern Region	23918	43848	38106
Central Region	66393	109231	84282
Western Region	87846	97341	112525
Eastern Region	297478	351800	412576
Southern Region	874585	1005227	1158797

(Table No.2:- Source NABARD Report)
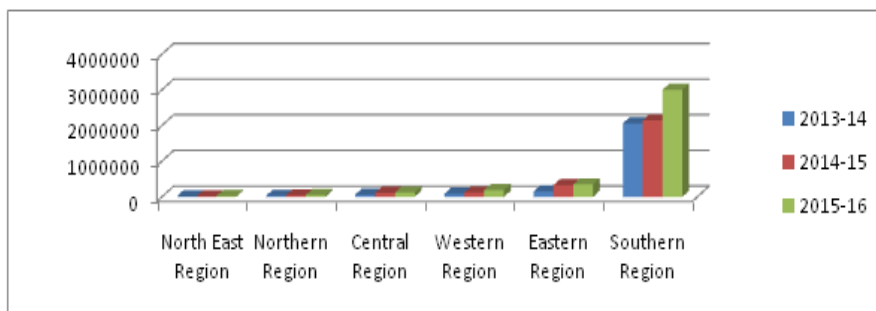
(Graph No.2:- Region wise total of No. of SHG's)

Interpretation: - Here we can see that, the growth of formation of SHG's for the period 2013 to 2016 is very high in Southern region and next to Eastern region states. Compared to southern and eastern regions other reasons showing very small development in formation of SHG's. Southern region continue to show its dominance in forming new SHG's than other regions in India continents.

3. Region-wise Status of Bank Loan Disbursed to SHGs During 2013-16

Regions	2013-14	2014-15	2015-16
North East Region	12819	15795	21969
Northern Region	28048	42873	48298
Central Region	61807	110909	119067
Western Region	86444	117080	188632
Eastern Region	151067	329602	349489
Southern Region	2061551	2141972	3001235

(Table No.3:- Source NABARD Report Amounts are in Rs. in Lakhs)
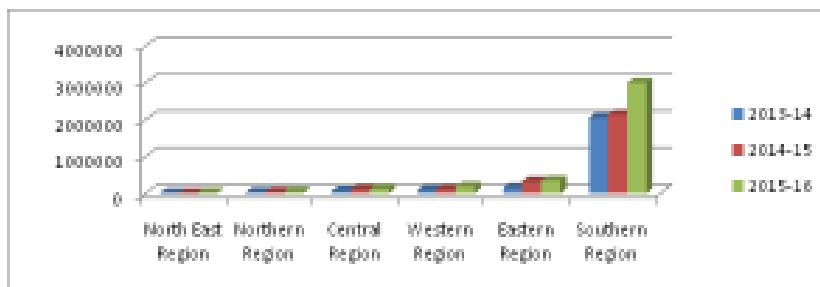
(Graph No.3:- Region-wise Status of Bank Loan Disbursed to SHGs)

Interpretation: -Above table and graph shows, the amount of disbursed loans by SHGs in different Indian regions during the period 2013 to 2016. Here we can see that, in southern zone, there was direct 40% percent jump in credit disbursement by SHG's in 2015-2016. The states of southern zone, Andhra Pradesh, Telangana, Karnataka, Tamil Nadu were the major contributors to this growth.

To analyse*2nd objective this study, to understand factors responsible for attracting poor segment people to Microfinance* researcher has selected 60 samples randomly who are active members of Self Financing Groups.

Gender	No. of Respondents
Male	6
Female	54
Total	**60**

Qualification	Primary	SSC	HSC	Graduation	Other	Total
Respondents	10	15	19	2	14	**60**

Tenure of Membership of SFG's	1month to 1 year	1 year to 2 years	2 years to 3 years	3 years and above	Total
No. of Respondents	3	10	22	25	**60**

(Table No. 4, 5 and 6:- Prepared by Researcher based on data collection)

Interpretation: - Here researcher has collected data from 60 respondents selected randomly who are active participants of Self Finance Groups. Table no. 4 shows that, Out of 60 respondents 54 are female and 6 are male. Table no. 5 showing that, Out of 60 respondents, 19 respondents are HSC passed and14 have completed some private diploma courses. Very few respondents are graduate passed. Table No. 6 showing that, out of 60 respondents 45 respondents are the active participants of SFG's more than 2 years.

Facilities Offered by Self Financing Group (SFG's) to Join SFG's

Attractive Facilities offered by SFG	No. of Respondents
Savings	35
Easy Getting loan	22
Insurance	0
Pension	0
Fund Transfer	3
Incentives	0
Total	**60**

(Table No.7:- Prepared by Researcher)

Interpretation: - Here we can see that, maximum respondents' joins Self Financing Groups (SFG's) because of 2 main reasons i.e. Savings and Easily getting loan against saving. Apart from that, many of the facilities listed above by researcher in his research are not aware by respondents. Out of 60 respondents only 5 percent respondents are use SHG additionally for money transfer or fund transfer.

Purpose of Taking Loans From SFG's

Purpose of taking loan from SFG's	No. of Respondents
To start a small business	13
To buy own house	20
To pay education expenses of children	22
Expansion of business	0
Children Marriage	5
Medical	0
Total	**60**

(Table No.8:- Prepared by Researcher)

Interpretation: - In this table, we can see that maximum respondents have taken a loan from SFG's as they want to maintain the financial provision for their child's education. Also many are among them wanted their own house and start small business.

Findings

Based on the respondent's responses, maximum respondents are joining Self Finance Groups (SFG's) because of following reasons

  i.   Respondents find safe in making savings in SFG's than bank.

  ii. Maximum respondents feel that, doing transactions with SFG's is easier than commercial banks.

  iii. Because SFG's offering higher returns than commercial banks, many of the respondents join SFG's.

  iv. Every SFG's having their own representatives, which are responsible for collection of money from members and payments of money to members, Therefore, members of SFG's no need to go personally anywhere for deposit or withdraw, where commercial banks do not provide such facilities.

  v.   Also respondents believe that, getting loan against savings in SFG's is comparatively easier than getting loan from commercial banks. Additionally, time taken by SFG's to sanction loan to its members is also less than time taken by commercial banks.

vi. Researcher has also find, why respondents want tojoin SFG's? , they want to start their own small business as many of the members are women; they want to start their house made business. Apart from that, Loan for purchasing own house, bare basic educational expenses of children are another important reasons according to respondents to join SFG's.

vii. Because SFG's charge less interest rate against payment of loan is the another main reason why many of respondents are preferred to take a loan from SFG's than bank.

viii. Also repayment of loan is easier than bank, as SFG's are group of members and they know each member well. They all are having mutual trust and understating between each other. And hence if delay in repayment of loan by any one of the member, SFG do not charge penalty from that member. Therefore, member of SFG's having more trust on group than bank.

Conclusion

The microfinance concept in the developing countries like India is playing a vital role for social as well as economic development of poor and low income group people. Since 1990s, reduction of poverty has taken a main focus at both national and international development level, various initiatives has taken by our government. Hence, Microfinance has caught an attention as a powerful tool for reducing poverty as well as development of socio- economy. Presently, Microfinance is playing anessential role for improving the standard of living of poor segment people. But still creation of awareness among members about advanced products and services offered by microfinance is a big challenge in front of Indian regulatory authorities. Also there is a need of continues surveillance of such authorities to protect members of microfinance fromvarious frauds and mal practices in microfinance options like SFG's.

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An assessment of Utility of Health Information Systems to Health Workers

Prasuna.Kuragayala* & Dr. Shaji .K. Joseph**

Abstract

The utility of health information systems is essential in health care sector for providing better services. It helps to improve the overall efficiency and effectiveness of health care services. Combing the services of health care sector with information technology has made the coordination of large units and functions of health care to provide improved and better services. Managing records and details of patients, clinical information and financial management and other comprehensive details related to health care sector has become easy with the usage of information technology. Such information accessed through information systems helps the health workers to providing better health care services to patients. The present study aims to understand the utility of health information systems to health workers for accessing , storing and sharing routine information.

Keywords: *Health Information Systems, Health Care, Health workers.*

Background

The health information system (HIS) provides the underpinnings for decision-making. Primarily the important key functions of health information systems are data generation, data compilation, data analysis and data synthesis, and use it for further communication purpose. The health information system collects and maintains data from the health sector and other relevant sectors. HIS analyses the data and ensures the overall quality, relevance and timeliness, and converts data into information for health-related decision-making. HIS integrates health related data required for all levels of health care team and helps in better coordination of services delivered(WHO, 2008) . A good model of HIS supports all aspects of business operations such as managing patient records, accounts and financial transactions and third party interactions mainly insurance companies. At the same time maintaining electronic health records through proper clinical documentation is important. Facilitation of communication among all the health care team mainly doctors, nurses, administrative staff is essential. The implementation of HIS must be simple , sustainable without adding too much costs and help for health workers in their routine work .Integration of data done through HIS should be accessible and of utility to end users. The design of HIS should not be complicated. It has meet the real time requirements of health care sector in a easy way without much difficulty and gaps. The current research aims to understand the utility of HIS mainly to health workers in their routine work and their overall satisfaction levels with regards to certain aspects of HIS.

Introduction

Health information systems helps to integrate the collected data for generating required reports and information required at all levels of health services and for efficient management of health services. The value of such information stored will depend up its utilization for improving of health services. Most health workers think that health information systems is to fillendless registers and forms with names and addresses of patients, compiling information on disease every week or month, and sending reports to the next level without adequate utilization and feedback (Heeks, 2006). At the same time deployment of health Information Technolog alone is not sufficient to improve quality in health service delivery; what is needed is a human factors approach designed to optimize the balance between health-care users, health-care providers, policies, procedures, and technologies.(Kappelman , McLean (1991).

The implementation of Hospital Information System should be well planned. Care should be taken while choosing the vendor and software. The chosen software should be able to meet the objectives of the organization and meet the requirements of health care services delivery team (Kim J.et al.,2012). Since the implementation of information systems involves investment of financial resources it should be ensured that it is successfully adopted at all levels in the organization (Amin et.al 2011) . The different levels of hospital administration, human resources and technology need to integrate so that the service processes apply the benefits of information systems in delivering quality services. Health management information system (HMIS) is a means that allows collection and storage as well as analysis and usage of health data

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to improve patient satisfaction with health services by tracking certain dimensions of service quality(Baus A, 2004). The HIS customers are classified into internal and external. Internal customers are physicians, nurses, laboratory technologists, pharmacists, quality department, and others within a healthcare facility that interacts with the essential processes. External customers are patients, patients' families, insurance providers, suppliers, health services researchers, etc. The success of HIS implementation depends on its implementation and utility to both external and internal customers on a regular basis. The user's expectation about the health information systems should be understood and the issues need to be handled as they arise for smooth flow of activities. This will help to improve the quality of services delivered by health workers thus resulting in better satisfaction of health workers

This research focuses on the utility of health information systems to Internal customers working in the health care sector. Mainly the health workers working in hospitals are considered for the purpose of study. The overall utility is analyzed based on certain features of quality of HIS in terms of storing the information, accessibility and overall satisfaction of users for their daily routine work .

Research Objectives

The research objectives are therefore as follows

1. To understand the quality of health information systems implemented to help health workers in routine work.

2. To understand the overall satisfaction level of health workers while using the health information systems in routine work.

Methodology

For the purpose of the study the required data was collected from health workers working in hospitals of Navi Mumbai region in Maharashtra. The category of health workers chosen are mainly Nurses, Administrative staff and accounting staff working in hospitals. 72 respondents have been chosen for the purpose of this study.This study was conducted using a questionnaire. Respondents were asked to fill out the questionnairewhich was prepared by listing out certain features of HIS. Prior to the analyses, all variables were examined for accuracy of data entry and missing values. Missing cases were excluded from the data while carrying out analyses using the SPSS software. The data was analyzed using SPSS.

Some of the characteristic features of usage of HIS have been identified which are Accessibility, Technical support, Confidentiality, Quality and overall satisfaction levels. Based on these features a questionnaire was designed. 72 respondents working in various levels mainly nurses, administrative staff, accounting staff have been asked to respond. Non parametric tests have applied for data analysis and interpreting the results

Hypothesis

H_0 There is no significant difference in the overall satisfaction of health workers with the utility of HIS in routine work.

H_1 There is a significant difference in the overall satisfaction of health workers with the utility of HIS in routine work.

Data Analysis

●   Test Statistics:Friedman Test

Ranks		
	Features of HIS	**Mean Rank**
Accessibility	The nature of work involves data storage in HIS matches the skills I possess	11.27
	The HIS display of data is user friendly	12.42
	The data is accessible easily	13.06
	The other team members input data is accessible if required	12.09
	Timely retrieval of data is possible when ever I need	12.32
Technical support	I get access to computer whenever I need easily	12.80
	Required training has been provided for usage of HIS	13.01
	The customisation of tasks performed by me has been done	12.45
	Technical issues are solved on priority basis	13.29

Confidentialty	Privacy of information stored by me is there	12.71
	Information stored about patients is safe	11.99
	Redundancy of work is eliminated	13.76
	Secured systems are in place	11.49
Quality	I feel the service delivery has improved with the utility of HIS	10.54
	Information is stored in an organized way	7.35
	Time is saved with the utility of HIS	10.29
	Quantity of work in terms of maintaining files has reduced	10.20
	Overall quality of services have improved	14.11
Overall satisfaction	Outcomes of work have improved with the utility of HIS	11.77
	Immediate assistance in my work is available because of HIS	11.30
	I feel satisfied with the utility of HIS in my job	11.88
	Interaction with patients has become easy with HIS	13.29
	Regular feedback from all team members gives better satisfaction in work	12.63

Test Statistics	
N	71
Chi-Square	112.559
Df	22
Asymp. Sig.(p-value)	.000

Conclusion

Since p-value =0.000 < 0.05, we reject H_0. Hence, we conclude that there is a significant difference in in the overall satisfaction of health workers with the utility of HIS in routine work. The data is easily accessible for health workers but they feel that the usage of HIS may not be related to all the roles held by them. A good technical support system is available but the customization of tasks done by health workers may not be possible completely. Confidentiality of data is possible but since it is accessed at all levels the data may not be safe in all aspects. Overall quality of services have improved with the implementation of HIS. Since the kind of patients differ in the services they avail it may not be possible to store data in an organized way. The health workers are overall satisfied with the quality and utility of HIS . They feel that interaction with patients and other team members has become easy with the implementation of HIS.

Limitations

The study was limited to only hospitals using HIS in Navi Mumbai and was limited to 72 respondents only which is very less if we compare it with the total number of health care employees and hospitals located in Maharashtra.

Managerial Implications

In this age of digitization it is important to understand the utility of HIS for health workers. Since implementation of HIS is time consuming and also lot of financial investment it is essential to understand the benefits aspects to end users. The feedback of internal customers about HIS who are considered for the purpose of study is important to bring the required changes in HIS for efficient delivery of health care services.

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Smart Management in Smart Cities Through E-lockers

Dr. Triveni P.

Abstract

QikPod is building a nationwide network of parcel delivery lockers to solve last mile delivery issue. Last mile delivery is the final leg of the supply chain. It is the moment the customer finally receives their order. And it is generally the most expensive, least efficient and most problematic part of the overall delivery process. Last mile delivery is key to timely and cost-effective delivery in the fiercely competitive e-commerce market.

The Company aims to tackle last mile delivery issue by installing automated smart lockers at various locations in the apartment complex. This system will enable customers to order products online and have them delivered to the lockers that they can pick up later from at their convenience. This eliminates the situation where residents are not there at home at the time of delivery.

Keywords: Smart lockers, Physical Internet, hyper connected city logistics, last Mile Delivery, Smart City logistics, E-Commerce, Parcel Delivery.

Introduction

Logistics industry in India is an industry that has not accomplished its much merited consideration or acknowledgment. It is a region that is ready with potential but the assets are a long way from finish usages. There is however a tremendous interest for strategic administrations in India particularly with the development of the Indian economy alongside the flood of new organizations in divisions that was generally obscure. Assessed at an estimation of $14 billion US dollars this industry is slated for another 9% to 10% development in the years to come.

Qik Pod Lockers

QikPod, a start up being propelled by serial business visionary Ravi Gururaj concentrating on taking care of Last mile conveyance issue by setting up a system of wise lockers for conveying web based business packages to online customers over the metros.

QikPod is a system of computerized electronic package lockers. A definitive in conveyance accommodation, QikPod divide take out missed conveyances, sitting tight for messengers and superfluous calls from conveyance young men. Messengers convey into the lockers for you to gather a package at any given moment and place of your comfort.

Review of Literature

By: JustynaLemke. Stanis³awIwan. JerzyKorczak

1. The development of B2C internet business showcase brings about the expansion of significance of last mile conveyances in the city territory. Because of web based business' nonspecific specificity, working of the conveyances in online business on B2C advertise depends on home conveyances. Because of effect on the developing interest for conveyances, which thusly could have the effect on movement and blockage issue and in addition city condition, it is imperative to search for the elective measures, which will lessen this negative effect. As of late an exceptionally intriguing and mainstream arrangement progressed toward becoming bundle lockers as the effective last mile conveyance framework

By: Louis Faugere1,2, Benoit Montreuil1,2,3

2. Over the most recent decade, the web based business industry has reformed the way individuals are shopping, and changed the B2C business, expanding the requirements for home conveyance. In this present reality where urbanization makes user urban areas, last mile conveyance turns into a main problem for both urban arranging and coordination's suppliers' working expenses. In accordance with the Physical Internet's ideas, systems of transparently accessible Smart Lockers Terminals bring an answer for retain the development

of online business in urban zones, utilizing combination openings, or crowdsourced conveyance openings. A few organizations officially executed this arrangement, now and then alongside a system of joined forces business get to focuses. Some of these organizations are distribute specialist co-ops, others are internet business retailers, while others are engaged savvy locker specialist co-ops. We look at in this paper the diverse plans of action and abilities right now dynamic in the market.

Reference: International Post Coportation

3. Change and advancements in first mile, last mile and switch coordination's in the course of the most recent decade have been driven by the development of B2C and C2C internet business and the test of meeting shopper desires as far as package conveyance adequately and effectively. • Consumers have become familiar with having the capacity to shop whenever, any day from anyplace • Consumers are searching for every minute of every day accommodation while getting merchandise acquired online The offer of fruitful first-time conveyances is diminishing for private families as individuals are working longer hours, conventional morning conveyance hours progressively don't coordinate current ways of life and the quantity of single families rises (particularly in urban territories). New ideas in last mile conveyance 'get focuses' and first mile get to 'drop-off focuses' have been produced ('PUDOs' for short). These can be named staffed or programmed PUDOs. • Staffed PUDOs are by and large situated in effectively available business outlets with long opening hours. These are furnished with standardized tag scanners and by means of electronic information trade (EDI), the drop-off and get of bundles are naturally recorded.

Statement of Problem

Delivery has always been a major hurdle that has impeded E-commerce growth because the people are busy with their own lives. Some people order the products in their offices and homes but still face problem for collecting the products. Our company wanted to capitalized on the potential of this market and develop a solution that can be profitable to both the consumers and the E-commerce.

Objective of the Research Problem

- To create awareness among the people about the Lockers.
- To understand all types of factors which can lead to grow the business.
- To understand the feasibility of the product.

Scope of the Study

- The scope of this project is to study the India's e-commerce market which is growing at a rapid pace and estimated to be worth $100 billion by 2020.
- The need of the study is to offer new and improved measures and strategies to improve the efficiency of the organization by working on the area of improvement.

Research Methodology

- Empirical study
- Sources of data:
  - i. Primary Data – Questionnaire/ Interview
  - ii. Secondary Data- Various Websites
- Sample Size: Selected apartments in selected areas in Bangalore
- 50 flats in selected apartments.

Analysis

Objective 1

To create awareness among the people about the lockers

Q. Would you trust the new e-locker safety that is introduced by QikPod locker?
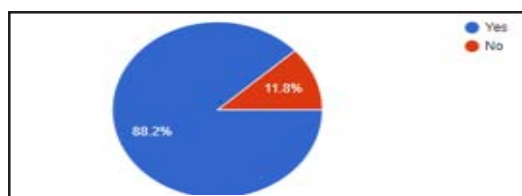
Table I

	Frequency	Percentage	Cumulative Percentage
Yes	15	88.2	88.2
No	2	11.2	100

Interpretation

From the above graph, it can be concluded that 88.2% of the customers trust e-locker service whereas 11.8% do not.

Inference

The people surveyed were aware of the product and it was more likely that they could be converted into prospective customers

Q.Which segment of the society would make the most use of this service?
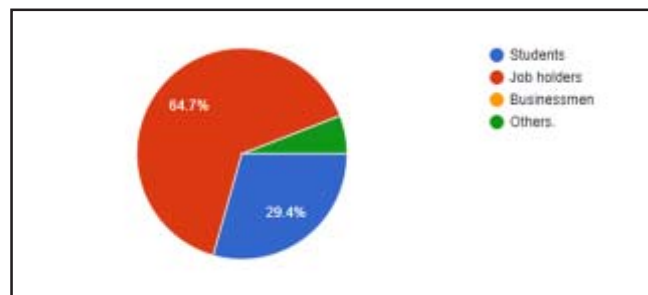
Table II

	Frequency	Percentage	Cumulative Percentage
Job Holders	11	64.7	64.7
Students	5	29.4	94.1
Businessmen	0	0	94.1
Others	1	5.9	100

Interpretation

The survey shows that 64.7% of the job holders 6are interested to use this service. 29.4% of students use this service.

Inference

So many job holders prefer the service, as it provides flexibility in timing to pick up their parcel at their convenient time. Basically in cities like Bangalore the population comprises of working class where people don't have time to collect parcels because of their daily working schedule, so for them it's easy to use this service and be more flexible to collect the parcels.

Objective 2:

To understand all types of factors which can lead to grow the business.:

Q. How would you rate the service provided by QikPod?
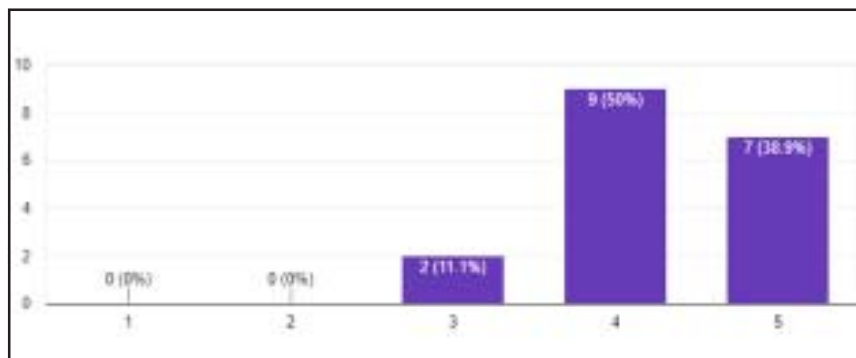
Table III

	Frequency	Percentage	Cumulative Percentage
1- below average	0	0	0
2 average	0	0	0
3 neutral	2	11.1	11.1
4 good	9	50	61.1
5 best	7	38.9	100

Interpretation

The graph shows that 50%customers and 38.9% of people surveyed are satisfied with theservice provided by QikPod lockers.

Inference

People are satisfied with the service provided by QikPod Lockers and many of them promising to use it again.

Q. What difference have you experienced after using QikPod services?
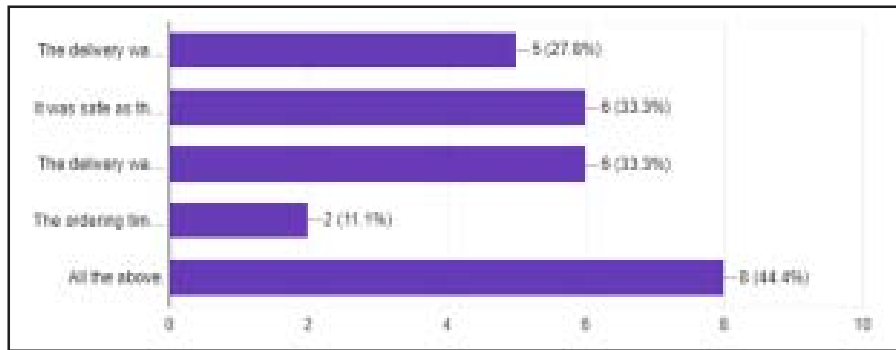
Table IV

	Frequency	Percentage
The delivery was according to the convenient time.	5	27.8
It was safe as the opt number was given only to me.	6	33.3
The delivery was unique as it was a new concept in the market.	6	33.3
The ordering time and delivery time wasn't a hassle as I could pick it up anytime of my convenience.	2	11.1
All the above.	8	44.4

Interpretation

As the above graph shows that 44.4% customers thinks that the service is totally beneficial for them which can ultimately leads to make more use of this service and can lead to expand the business. Among various options 27.8% suggested that the delivery was according to the convenient time, whereas 11.1% suggested that the ordering time and delivery time wasn't the hassle as their can pick up the parcel at their convenience.

Inference

Many customers were extremely satisfied by the overall service offered by QikPod and are looking forward to use it again. It was extremely heartening to see that many people were satisfied by the delivery service. Few customers only agreed that convenience was a major factor, which is surprising as QikPod main motto is to provide convenience.

Q. What makes you use QikPod service every time you order something online?
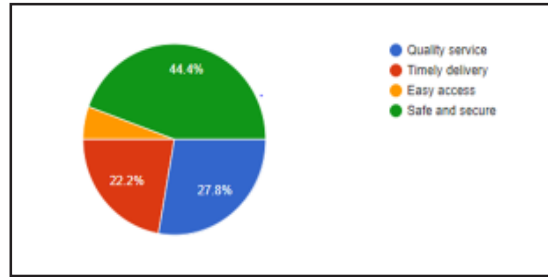
Table V

	Frequency	Percentage	Cumulative Percentage
Quality service	5	27.8	27.8
Timely delivery	4	22.2	50
Easy access	1	5.6	55.6
Safe and secure	8	44.4	100

Interpretation

44.4% customers feel safe and secure while using this service as it provides OTP numbers which is highly confidential and only the desired customer can open the locker by using the OTP.

27.8% customer says that the quality of service is highly appreciable with respect to customer care service or if their lack any of the information to make use of the lockers. 22.2% says that the parcel is timely delivered whereas 5.6% customers says that the QikPod is easily accessible.

Inference

Many Customers felt QikPod was safe and secure to use and that was heartening to see such a positive response. Quality of Service was a major parameter as this being a start-up, the service quality has to be respectable and it was satisfactory to see such a positive response.

Objective 3

To understand the feasibility of the product.

Q. The service provides you flexibility to receive the goods at convenient time and day, which is nearest to your desired location. Rate the service
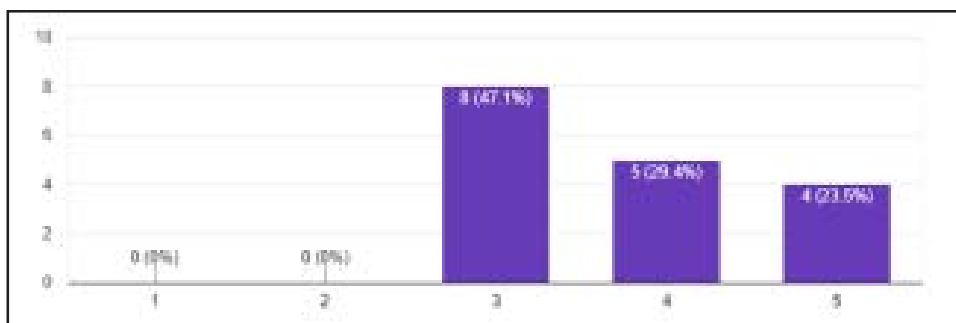
Table VI

	Frequency	Percentage	Cumulative Percentage
1- below average	0	0	0
2 average	0	0	0
3 neutral	8	47.1	47.1
4 good	5	29.5	76.5
5 best	4	23.5	100

Interpretation

47.1% of the customers says that the service is feasible to use as the service provides the customer to collect their parcel at their nearest location where the lockers has been setup. 29.4% of the customers also gave favourable reviews

Inference

Majority of Customers felt very good about service and it is primarily because it solves a problem for them, for example, at the working place where the customer is working or while going back home the customer can give the address where the locker is situated at the nearest location of his/ her home.

Findings and Inference

- The analysis done has given us the picture that many customers find QikPod very favourable and feasible to use, which shows that there is market potential for it.
- Customers were satisfied by the timely delivery of the product and the flexibility it provides when collecting it.
- The analysis has also led us to conclude what we always suspected that QikPod is extremely useful for Job goers as they do not have much time to collect the product on time and QikPod gives them a lot of flexibility. Even though the product doesn't necessarily target the student population, it is also nice to know that if the student can afford it, they will prefer to use it.

With e-locker, customers can pick up their parcel at their own convenient time 24/7. Once the parcel is placed in e-locker, customer receives an OTP on their mobile. They can go to the e-locker at their awn convenient time, enter the OTP & can take the parcel. With this they will be able to solve the problem of redelivery, & customers don't have to wait for the delivery boy to receive their parcel.

Recommendations

As major e-commerce companies incur more charges on their logistics operations, with this research we can suggest that e -lockers can highly reduce the operation procedure and can make customer more flexible to pick up their parcels so that it can be more profitable for both customers and e-commerce.

For example, E commerce companies incur more charges on their transportation cost by multiple deliveries or failed deliveries. By making use of e-lockers operational cost will definitely reduce and as the system is totally safe and secure misplace of the parcels can be neglected.

Conclusion:

Right now logistic sector is much unorganized. There is a huge potential in this sector. E-commerce companies are facing the problem of failed delivery, redelivery. Many time customers are not available at home, or they don't want to be disturbed in their offices. QikPod has taken the initiative of solving this problem. QikPod is a third party logistic and is setting up e-lockers in public space like malls, office space andapartments.

QikPod has come up with a very good solution of solving last mile delivery issues. QikPod greatly enhances the flexibility of supply operations, reduces re-delivery and helps couriers. The chief benefit of locker services is that they greatly reduce the need of re-delivering couriers when deliveries don't occur. Thus, a much fewer number of journeys will have to be done, greatly benefiting logistical operations. As a side-benefit, even greenhouse gas emissions will be reduced, due to fewer journeys being undertaken. QikPod emphasis on making services smoother and more efficient will greatly boost the logistics sector overall.

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`　5　https://www.vccircle.com

Ready or Not – Mooc Has Arrived

Tejal Devkar,* AmrutaDeshmukh** & Dr. PurviPujari***

Abstract

Technology has been a boon to the world. It has also changed the various aspects of teaching and learning. Recently, the benefits and the challenges about MOOCs. The survey also aims to capture the knowledge and opinion about MOOCs. The sample design used for the purpose is convenient world has seen a tremendous growth in the education sector due to help of technology. Many universities nowadays offer free and open courses over the internet. Such courses are enrolled by massive participation. This new concept of offering an online course is called Massive Open Online Courses. MOOCs is defined as a course of study made available via the Internet without charge to a very large number of people. This paper attempts to evaluate the level of awareness and random sampling. The research methodology used for the same is exploratory research so as to study the reason behind the same. This research covers at least 100 respondents belonging to various age groups. Both primary and secondary data is required to analyze the survey. This paper reflects the awareness about online learning phenomena like MOOC. The findings suggest that technology must be used more efficiently for educational purpose and awareness should be created through various means of communication like social media, newspapers, public marketing etc. Open courses will promote lifelong learning and motivates students 'Self-development'.

Keywords: MOOC(Massive Open Online Courses), Awareness, Learning Experience, Distance Education, Digitization

Introduction

Being in the 21st century, the education sector has been growing and expanding in a broader range. In the modern world technology has added value and enhance the education system. Access to internet has also made things easier and through this there is a proper use of resources even at a great distance. The quantity and the quality of online courses is growing rapidly all over the world. The education system has added various online courses which provides a chance to the learners to explore their skills and knowledge too. In today's education system digitization plays an important role. Digitization has also created an impact on the education sector. Digitization has arrived through MOOCs. Massive Open Online Courses allows large number of participants to access these online courses from any part of the world and it also helps then to increase their networking. MOOCs stand for Massive- massive means large numbers of participants can access it from any part of the world and it is free of charge. Open- the course can be accessed to anyone from any corner of the world. It does not require any entry qualification or entry criteria. Online- it means the course is available for learners through internet. Course- the course is available of various platforms and these different platforms provide varieties of subjects. Massive Open Online courses (MOOCs) aim for large numbers of interactive participants. It also provides various study materials such as videos, books etc and also helps in developing the network. MOOCespecially is a platform for those who are challenged financially. One of the major points of MOOCs is that faculties can enrich their knowledge and students also get an opportunity to explore. Hence it is a win-win situation for both.

Since MOOCs are a recent development in the education system very few are aware about it. The intention of Massive Open Online courses is to provide these courses to the learners who look for such opportunities. This is a unique way of learning and students should be motivated to take these online courses.

Objective of the Study

- To understand and analyze the concept of MOOC
- To analyze the level of awareness of MOOCs
- To study the major challenges associated with MOOCs
- To study the primary benefits with MOOCs

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Research Methodology

A research method/design is a basic plan, which guides the researcher in the collection and analysis of the data required for practicing the research. The study is carried out to understand that why there is lack of awareness about MOOC. This research covers at least 100 respondents belonging to various age groups. Foe the objectives of the project both primary and secondary data is required.Therefore: both primary and secondary data was used for the project.

Primary Data

The primary data is collected by framing questionnaire and was circulated within the sample of 100 respondents that is conveniently selected. The questionnaire contained questions, which are both open-ended and close-ended.

Secondary Data

The secondary data on the other hand was conducted through various published books, magazines, articles, newspapers, websites etc.

Literature Review

In the recent time online education resources plays a very important role in sharing the information, students and teachers also benefit from it at a large scale.(Adams, Liyanagunawardena, Rassool, & Williams, 2013)[1]

A MOOC is an online course which connects students from across the globe and facilitates learning mutually and also with the help of the experts. It provides a strong networking. To enroll to these courses you don't need any prerequisites such as entry fee or entry criteria (McAuley, Stewart, Siemens, & Cormier, 2010)[2]

Massive Open Online Courses (MOOCs) is rapidly growing and changing the role of higher education and employee development in general. Most of these courses offered are free of cost and they do not require any prerequisites and no class size constraint (Sharples et al, 2012)[33] A Massive Open Online Courses provide different platforms to students and these platforms provide different subjects of specialization which the learners can choose giving them vast choices. This helps the students to gather as much information they can and also share this information which in turn helps them to increase their network across the globe. They can indulge in various activities such as watching videos, posting blogs, and commenting via social media platforms (Thompson, 2011).

MOOCs allows large participation of students from different corners of the world but downside is that there is very low completion rate that means dropout rate is high. (Balsh, 2013).

Rivard (2013) pointed out that hundreds of thousands of people across the world are signing up for MOOCs. There is no course fee as they offered free. There are no prerequisites of these online coursesbut still only few complete the course and get the certificate.

With the arrival of MOOCs online learning have certainly been beneficial to the traditional classroom learning. Online learning has mainly been the domain for open universities. MOOCs is seen as a game changer, disruptive in online learning (Leckart, 2012)

Data Analysis

Introduction

The research project has set up 14 questions questionnaire to analyze the respondents level of awareness towards Massive Open Online Courses. A total 100 respondents is taken into consideration for data analysis and graphical representation id done through pie charts and bar graphs.

1.Age group of respondents
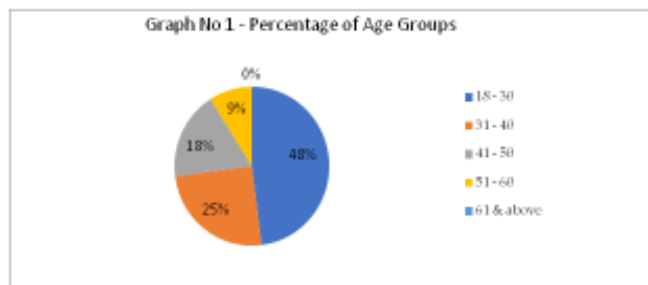
As per graph 1 there is significant participation of the younger generation in the survey with 48%. 25% of the respondents are between 31 – 40 age group and there is no participation of between age group 61 and above.

2.Gender of Respondents

Graph No 2 - Percentage of Gender

38%

62%
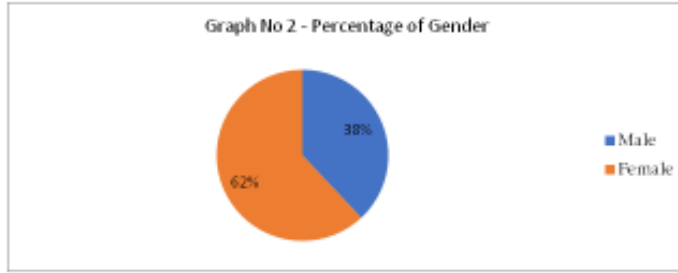
- Male
- Female

As per graph 2 there are 62 females & 38 males have participated in this survey.

3.Educational Qualification of Respondents

Graph No 3 - Educational Qualification in percentage

- Graduate
- PostGraduate
- Professional
- Doctorate

17%

9%

40%

34%
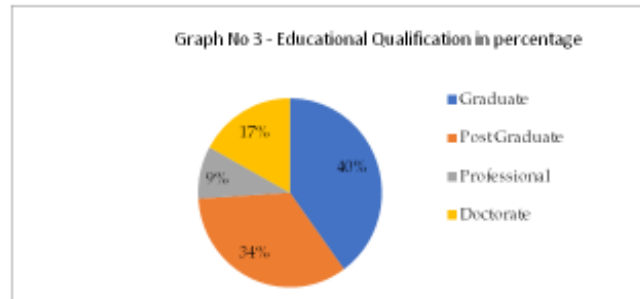
As per graph 3 the number of graduate individuals tops the survey with 40% followed with 34% in post graduate and 17% as doctorate and only 9% professional.

4.Level of familiarity of MOOCs:

What is your level of familiarity of MOOCs?

This question was asked to understand the level of awareness of the respondents.

Graph 4 - Level of familiarity of MOOCs

Developed a MOOC	0%
Successfully completed a MOOC	2%
Undertaking a MOOC at present	1%
Initially registered but dropped out of the course	2%
Looking for a MOOC to undertake	9%
Just heard/read about them	22%
Not heard	64%

0%   20%   40%   60%   80%
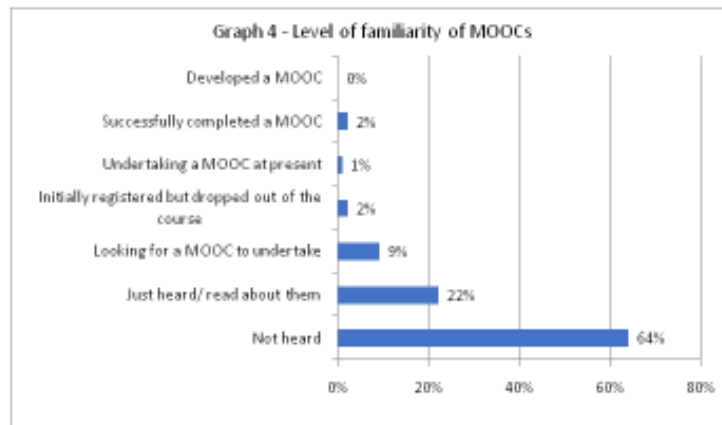
As per graph 4 it has been found out that 64% of respondents have not heard about MOOC. 22% of the respondents have just heard about this topic. Only 2% of the total respondents have successfully completed MOOC.

5.Source of awareness of MOOCs:

How did you hear or read about MOOCs?

This question was asked to respondents to understand the source of awareness of MOOCs.
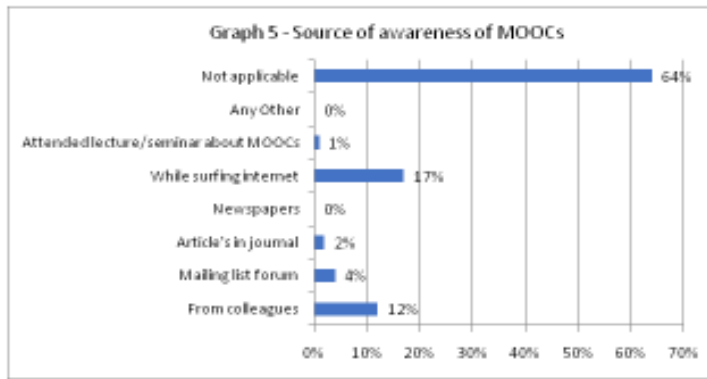
As per graph 5 the major source of awareness of MOOCs is while surfing the internet i.e. 17% and then the 12% from the colleagues.

6.MOOC platform used:

Have you used MOOC? If Yes, then from which platform?

This question was asked to respondents to know from which platform they have done online course.
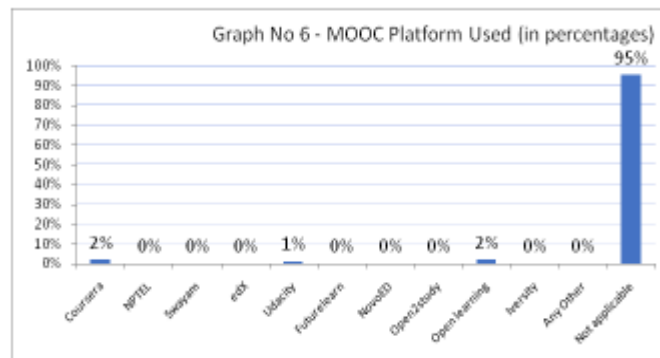
As per graph 6 it is seen that 95% of the respondents have not yet used any MOOC platform.

7.Subject Specialization:

Have you done any course through MOOC? If Yes, then in which subject?

This question was to know the specialization subject of the online course.
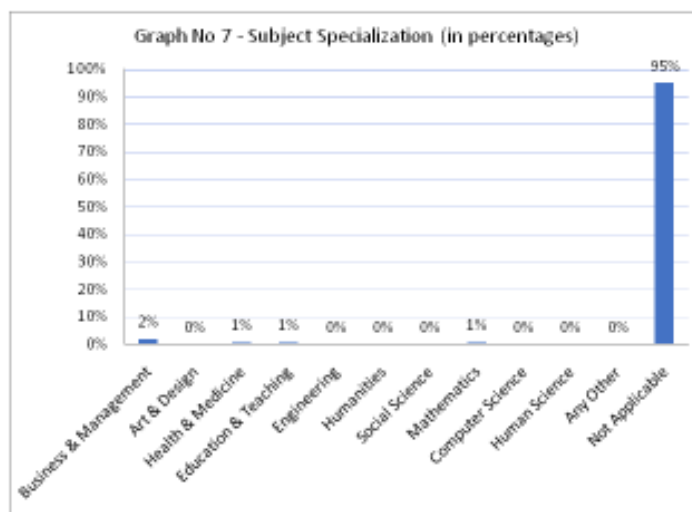
As per graph 7 - 2% of the respondents have done in business and management and 1% each in mathematics, health & medicine.

8.Opinion About MOOCs:

What is your opinion about MOOC?

This question was asked the overall opinion of online courses of respondents

Graph No 8 - Opinion about MOOCs (in percentages)
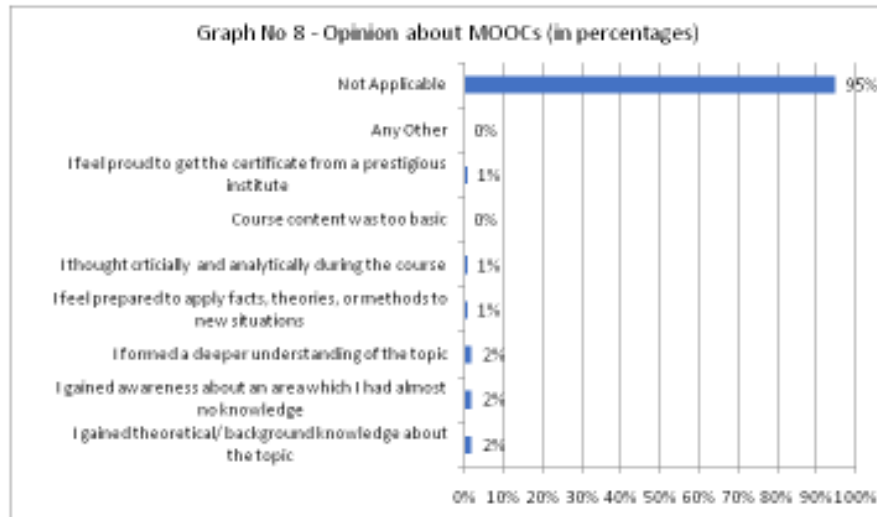
As per graph 8 maximum number of respondents had no opinion about MOOCs as they have not used any of the MOOC

9. Benefits of Using MOOCs:

What are the benefits of using MOOCs?

This question was asked to understand what are the benefits of MOOCs according to the respondents**.**

Graph No 9 - Benefits of using MOOCs
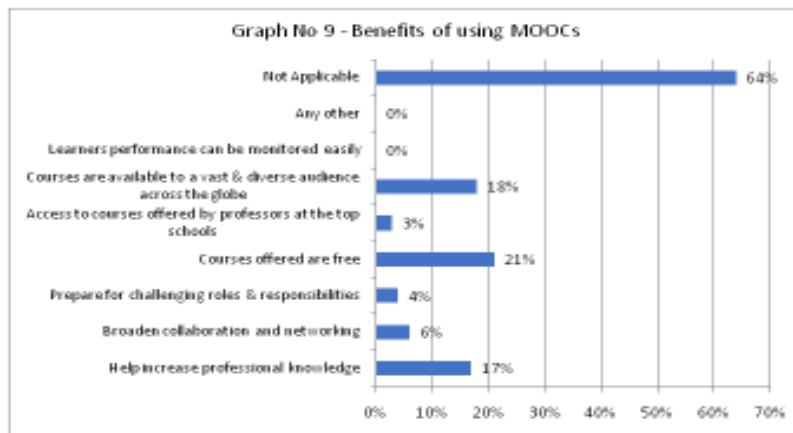
As per graph 9 the major benefit is that the courses offered are free i.e.21% ,18% of the respondents say feel they are available to vast & diverse audience across the globe and 17% of the respondents say it also helps to increase professional knowledge.

10. Disadvantages of MOOCs:

What are the disadvantages of MOOCs?

This question was asked to understand what are disadvantages of using MOOCs according to the respondents**.**

Graph No 10 - Disadvantages of MOOC
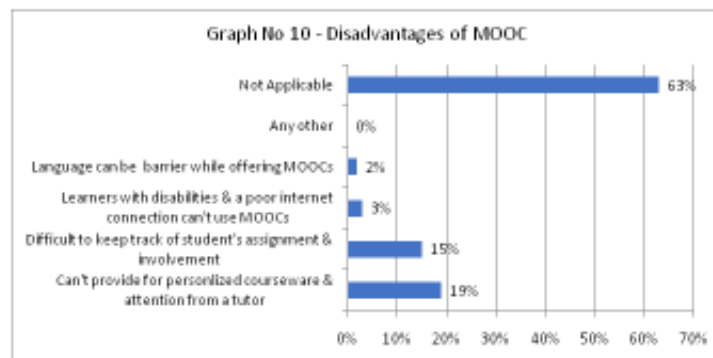
As per graph 10 the major disadvantage is that it can't provide a personalized courseware and it is difficult to keep track of assignments

11. Challenges of Taking Up MOOCs:

What do you think can be the major challenges of taking up MOOC?

This question was asked to respondents to know what are the challenges one can face while taking up online course.

Graph no 11 - Challenges of taking up MOOC
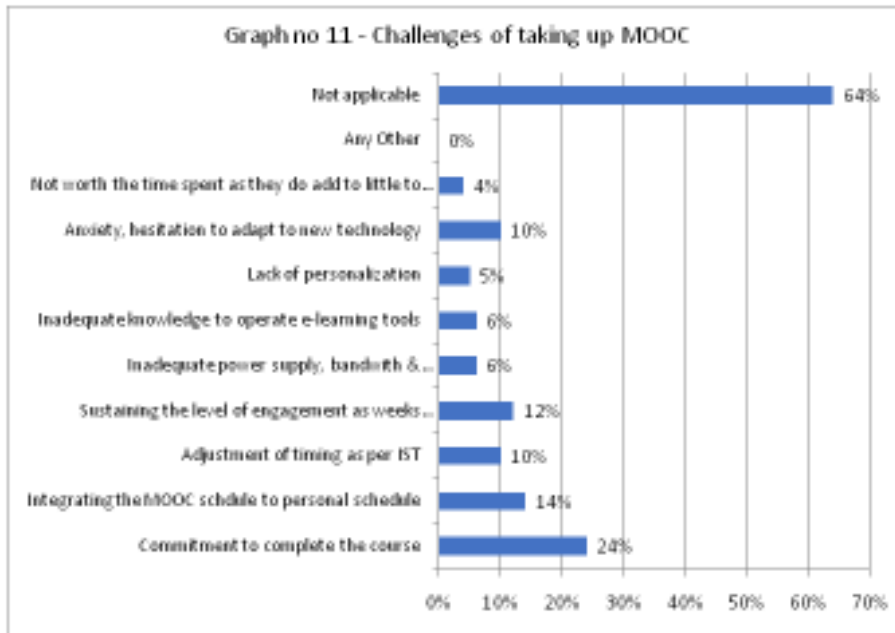
As per graph 11 the major challenges of taking up MOOC according to the respondents is the commitment to complete the course i.e.24%, 14% integrating the MOOC schedule to personal schedule.

12. Lack of Awareness of MOOCs

Do you think there is lack of awareness for MOOCs?

This question was asked what is the respondents opinion about the level of awareness of MOOCs.

Graph No 12 - Lack of awareness of MOOC
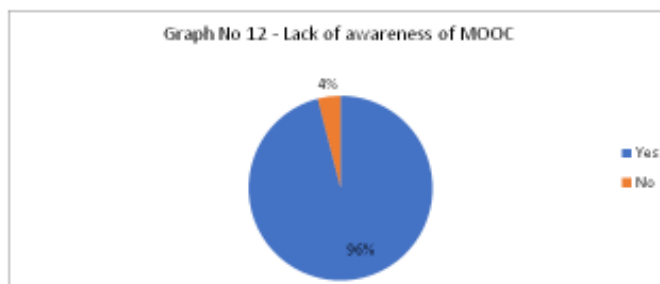
As per graph 12, most of the respondents feel that there is lack of awareness of MOOCs.

13. Various measures to create awareness about MOOCs:

If Yes, then how one can create awareness about it?

Based on the above question respondents were asked that how they will create awareness about MOOCs.

Graph No 13 - Various measures to create awareness of MOOC
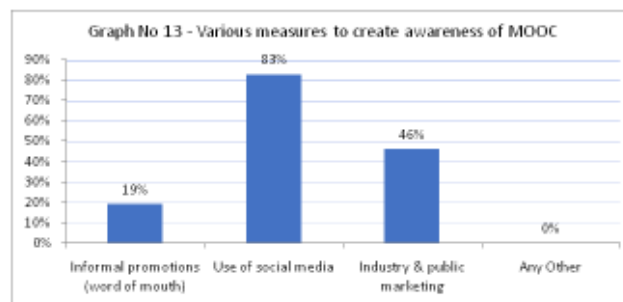
As per graph 13, 83% of the respondents said that use of social media is best way to create awareness of MOOCs followed by industry and public marketing.

Findings & Observation

1) It has been seen that 64% of the respondents are not at all aware of the online courses and 22% have heard the term MOOC and only 2% have successfully completed MOOC.

2) The major source of awareness of MOOC is while surfing the internet and from colleagues and only 1% is through seminar and lecture which shows educational institutions don't emphasize on these online courses.

3) 95% of the respondents have never taken any online course and never used any MOOC platform which shows there is no proper knowledge of these online courses

4) The major benefit of these online courses that there are free of cost and it helps to increase your knowledge along with broadening your network but the courses offered by professors of the top school is little lower than the other benefits.

5) One of the greatest disadvantage of these courses is that they cannot provide personalized courseware and it is difficult to keep track of student's assignment as there are thousands of students enrolled for a course.

6) The biggest challenge of taking up a online course is the commitment one need to sustain through the whole course as the weeks proceed and you have to keep track of your assignments. One must be very focused and determined to complete the course as the dropout rate is very high.

7) 96% of the respondents feel that is lack of awareness of online courses as there is no proper marketing of these courses. Even if there are thousands of courses made available by different MOOC providers but still to most of the people are not aware because our education system still emphasizes on the traditional classroom learning method.

Suggestion and Conclusion

Suggestion of the Study

Learning organization should take the initiative to promote MOOC by conducting various workshops and seminar so that the students get the knowledge of such online courses.

Universities who have adopted MOOC must highlight such platforms so that many are benefited, and large number of individuals can enroll to such courses and reap the benefits. They should also motivate students to take these courses and should make them understand how fruitful they are to their career.

Individuals who have used MOOCs should do Word of Mouth and promote as much as they can. Such type of marketing plays a very important role to promote such activity.

Conclusion

Looking at the present development and current trends it can be conclude that the future of MOOCs in India has a lot of positive things to offer to its learners.

These online courses will change the way we see at our education system and it will certainly add value to one's career and professional life

The survey conducted also says that there is lack of awareness of MOOCs and this lack of awareness is due to improper methods of marketing& there are various benefits of using these online courses which can help its users in their future life.

Massive Open Online Courses are bound to bring change in India and they are the new era of digitization in our education field.

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How Packaging Influences Consumers' Purchase Decision: An Introspection

Dr. Pinaki Ranjan Bhattacharyya* & Joydeep Das**

Abstract

Since time immemorial, there is a saying "first impressions remain forever in the mind". This is true always when it comes to consumer decision making process for buying a product. Consumers are very sceptical about consumable items they go for as their consuming pattern has changed from a marginalised one to a multi - headed one. The propensity of purchase increases if the product can attract more when a prospect comes in contact with the product for the first time. This happens because their decision making process is guided by numerous factors which ultimately leads to a decision making about whether to acquire or reject a product. The different attributes or factors present in the product instigate the need of consumers which are matched to generate post-purchase satisfaction before they take a purchase decision. Marketers try to reach their target segment through attractive packaging to convey messages about the product attributes. There is a tendency of buyers to form opinion about a particular product based on their understanding of different encrypted design and graphics on the container or wrapper that attracts their attention. The main objective of this study is to analyse how product packaging can be used to instigate the need of the consumers leading to a purchase decision in around Kolkata with a sample size of 66 respondents. This research has thrown light on the theoretical and empirical findings which has business implications for marketing managers.

Keywords: Product Packaging, Consumer Perception, Consumer Decision Making, Design & Graphics, Digitization

Introduction

Packaging is a relevant and very important communication tool in marketing to create a competitive advantage in the industry where a product competes. For some products like homogeneous nondurables, packaging is a crucial strategic element for brand differentiation and identity (Spethmann 1994; Markgraf 1997; AMA 1998; Doyle 1999; Swientek 2001; Bertand 2002; Doyle 2002).

Packaging is essential in consumer behaviour due to its influence in customer satisfaction and loyalty. In this regard, several authors have enlightened the importance of studying relationship between the attributes of packaging and its effects on customers' purchase decisions (Oliver 1997; Lofgren and Witell 2005).

Packaging serves not only as an element that contains and protects products but also it defines product quality. Various authors have emphasized the importance of packaging from a marketing perspective (Peters-Texeira and Badrie, 2005), even defining it as the fifth "P" of the marketing mix (Kotler and Keller, 2006). Packaging acts as communication vehicle through the attributes such as colour, design, form and message. This role has increased its relevance, especially because of the rise of self-service establishment.

Packaging is also important for brandingas it communicates brand identity and brand existence and assists in positioning the products in the minds of the prospect targeted as an integral part of product identity. This may be absent in cases where the packaging is not considered as an integral part of brand identity. From marketing perspective, researches on packaging has shown that packaging with design can be considered to be an element which strengthens the organization's image along with logo and commercials (Bruce and Daly, 2007). However, Weitzel and Laar (2001) has investigated and concluded that adoption of the communicative features into packaging considering from different cultures has an influence on the consumers. The authors suggested that the global packaging designs are applicable across different cultures, considering the growing tendency to import products from various countries.

The basic purpose of packaging is to protect a product from any kind of distortion or damage. But now-a-days marketers are very focused for product packaging and also they consider it as a **strategic communication tool** for their products and brand as a whole. For that they even use **digital platform** also.

Research unlashed that consumers' judge values of a product based on the uniqueness of product packaging and they are very eager to do experiment with products that are well packaged. Another aspect is that many manufacturers place

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logo's on the top of the product packaging. This is to ensure that as consumers' read the brand name, they are able to see the logo of the company that manufactured the product. This builds a strong relationship between consumers' and brands. It has an effect on consumers' perception on the value or quality of the company's products and can be a good marketing of the other products of the company.

Manufacturers and consumers claim that they are faced with challenges when it comes to communications about the products and ensuring that the packaging of products remains appealing. Well packaged products are able to maintain the brand power and also communicate about the products to the consumers'.

Literature Review

Consumer behaviour is a cornerstone of marketing strategy and it includes conceptual dimensions such as values, motivations, personality, expectations, attitudes, perceptions, satisfactions, trust, loyalty and consumer decision making. A wide range of research has been performed on the effects of the packaging design on consumer behaviour. Clement (2007) states that 90% of consumers make a purchase only after observing the packaging and without having the product in hand. Many authors' stated that people choose a product that they see in their own eyes. Orth and Malkewitz (2008) define package design as "the various elements chosen and blended into a holistic package design to achieve a particular sensory effect. Designers decide how to mix design elements, and determine the desired level of congruity among them". Bruce and Daly (2007) state that design adds value to products and companies. Package design reflects to the "creativity, intellectual property, and competence of the company". The authors state that investment on design has the potential to increase profits over 40%. Orth and Malkewitz (2008) argue that package design is a significant communication tool because it has such a huge impact on a consumer's decision making. The package is what the consumers' look at the moment they make their decision to purchase. The ultimate goal of the packaging is to get the consumers' to purchase the product. For the decisions made at the point of purchasepackaging takes on enormous importance relative to other communication tools because of its easy availability. Harckham (1989) states that the package is the buyer's avenue to the product because it often projects the initial impression forms about the brand. According to Futrell (2011), buyers should be viewed as decision makers. All buyers go through a series of stages before they make a purchase decision. The first stage is need arousal. The consumer must have a need for the product. The product can fulfill either physical or physiological needs. Packaging appearance has the ability to evoke need arousal. Packaging can gain consumer attention and interest and evoke emotions from the consumer. These reactions produce a need or desire for the product. The next stage is collection of information. If consumers' are not sure about a product they want to collect information about the product's price, features, expiry date etc. A lot of the information that consumers seek can be found on the product package. Next stage is evaluation of the information. The buyer matches product information with their own needs, attitudes, and beliefs. Only when these match, consumers' finally make a purchase decision. Marketers should be aware of the demographic and target market that will be purchasing their products and try to produce packaging that will show how the product is congruent with the target markets needs and attitudes. After purchasing, a product can give satisfaction or dissatisfaction for the consumers' particular needs or wants. If buyers are satisfied with the product or brand then they will purchase again in the future or they might be the loyal customers.

Colour is apowerful medium of package design which influences consumer behaviour. Colour can attract consumers' attention. Gaining a consumer's attention is the first stepfrom a marketer or designer's point of view, as it is a prerequisite for consumers' purchase. Package design and more specifically colour is an extrinsic cue. Extrinsic cues help customers' make decisions about products. Colour can be a source of information and convey messages and associations. Customers'try to make quick and easy decisions. They categorize the products to make quick and easy decisions. They relate new information to past experiences and pre-existing information. Colour also elicits an emotional response. Eliciting an emotional response is a powerful way to persuade customers' to purchase. Colour also has the influence to differentiate brands. Packaging, including its colour, has a large influence on the way brands are perceived and remembered. Schoormans and Robben (1997) state that product appearance has an effect on both consumer attention and product categorization. The authors defines attention as "the momentary focusing of information processing capacity on a particular stimulus". Stimulus characteristics which induce responses from consumers include colour, size, motion and use of complex stimuli. Attention falls within the first stage of the consumer decision process. Visual attention can be of two aspects, one is orientation attention and the other is discover attention. Orientation attention as the low-level search process where consumers are comparing but not selecting products. The process is completed as quickly as possible and enables lots of stimuli to be processed at a particular time. Discover attention as the action of processing one stimulus at a time. Discover attention is a slower but more high-level, ongoing process. Enhancing attention will increase sales. Increased attention will make it more likely that the customers' will enter the product into their consideration set. Many scholars discuss the importance of obtaining and maintaining consumer attention.If products can be well designed they portray a sense of quality and value to the consumer which increases the consumer's appeal and allure for the products, and makes it more likely for the consumer to purchase that product. Schoormans and Robben (1997) state that product appearance has an effect on consumer attention. The authors' state that the use of stimuli, including colour, size, motion, complexity increase the probability that customer will observe the product or change their behaviour. It is very important for designers to gain customers attention and also maintain it. In order to purchase a product by the customer, the product first appeal to them and also catch their attention. Many authors' stated that colour can be a powerful tool for

gaining this attention. Customer spend little time and effort on cognitive processes like reading and comparing prices. Instead of that they do extensive judgements on what they observe or see. Many consumers' face a difficulty in choosing brand quality. Then they choose products based on their packaging. It is stated by Clement. He also said that visual attention is related to products themselves and not their locations. This proves that stimuli lead visual attention from one product to another.

Clement (2007) introduce "Cue Utilization Theory" which states that when customers' want quick and easy way while taking a purchase decision about a product, they find simple rules to help them make their choice. Customers' use cue which helps them to reduce the input in the information process. Clement stated that packaging should be a part of cue construction. Cue is of two types. One is extrinsic like brand name, price, quality etc. Another one is intrinsic like taste, ingredient, fat content etc. D'Antoni stated package design as an extrinsic cue, more specifically as a motivational stimuli. This motivational stimuli initiate need arousal and form the basis for wants and desires. Motivational stimuli include product packaging, product display, branding, and advertising.

The chain quality, satisfaction and loyalty has also been studied by researchers such as Aaker in 1991 and Oliver in 1997. Researcher Farrukh in 2011, present a model that establishes the influence of packaging and labels on consumer decision making process while they purchase a product, taking into account the effect of brand image as a mediator. Karimi stated the relationship between packaging and consumer purchasing intent in cosmetics, food and health products. He established that main attributes of product packaging are graphics, colour, size, form and product information. Lofgren and Witell also stated the same thing i.e. visual (graphics, colour, size, form) and informative (product information) aspects are the main attributes of product packaging for gaining consumers' attention towards a product.

Ampuero and Vila, in 2006, investigated the role of packaging on consumers' perception so as to design product packaging that achieves the preferred product positioning.

Research Objective

Broader Objective

To find out whether packaging has influences consumer decision making process while purchasing a product.

Specific Objective

1) Whether Demographic profile has any influence on packaging of a product.

2) To find out the most influential purchasing factor on consumer decision making process while purchasing a product.

3) To find out whether there is any correlation between the purchasing factors of the different products on consumer decision making process while purchasing a product.

4) To find out the most important information provided on the packaging on a product while purchasing.

5) To find out whether layout of packaging can increase sale of a product.

6) Do consumer intend to pay a premium for attractive packaging in this dizitizatiged era?

Research Methodology

An empirical study is conducted in Kolkata and its surrounding area in the month of December, 2017 about how consumers evaluate product packaging while they purchase a product. For this a questionnaire was designed on various FMCG products mainly that has been in the market. As the respondents had the previous experience with these items or products, those are our targeted product category.

Because the purpose of this research was to find out whether there is any influence of product packaging on consumer decision making process while purchasing a product and most influential factors regarding this occasion, a **stratified random sampling method** was used to fill the questionnaire, the stratification has been performed on the basis of age, gender, education, occupation and income

A total of 66respondents participated in this empirical research. The detail responses are summarized below.

Responses and Analysis

Table – I: Res_age * Prefer_Health_drinks

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.606[a]	20	.001
Likelihood Ratio	18.666	20	.544

Linear-by-Linear Association	.340	1	.560
N of Valid Cases	66		

Table – II:Res_age * Prefer_Dairy_pdts

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.360[a]	16	.303
Likelihood Ratio	19.789	16	.230
Linear-by-Linear Association	2.280	1	.131
N of Valid Cases	66		

Table – III:Res_age * Prefer_Medicines

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.983[a]	16	.914
Likelihood Ratio	11.856	16	.754
Linear-by-Linear Association	.599	1	.439
N of Valid Cases	66		

Table – IV:Res_age * Prefer_Cooking_Oils

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.517[a]	12	.214
Likelihood Ratio	16.233	12	.181
Linear-by-Linear Association	.429	1	.513
N of Valid Cases	66		

Table – V:Res_age * Prefer_Grocery

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.250[a]	16	.903
Likelihood Ratio	11.388	16	.785
Linear-by-Linear Association	3.889	1	.049
N of Valid Cases	66		

Table – VI:Res_age * Prefer_Fast_Food:

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.584[a]	16	.349
Likelihood Ratio	18.054	16	.321
Linear-by-Linear Association	1.373	1	.241
N of Valid Cases	66		

It has been observed from the chi-square results of above six tables(table I to VI) that age has the most significant influence on packaging of health drinks. Age has some influence on other **me-too or FMCG products** also but not as significant as influence on health drinks. So, Marketers of health drinks products should present their product to young age (21 to 30 years) consumers' through attractive packaging.

Table – VII: Res_gender * Prefer_Fast_Food:

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.705ª	4	.046
Likelihood Ratio	12.186	4	.016
Linear-by-Linear Association	5.920	1	.015
N of Valid Cases	66		

Table – VIII: Res_gender * Prefer_Grocery

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.776ª	4	.311
Likelihood Ratio	5.916	4	.206
Linear-by-Linear Association	1.155	1	.283
N of Valid Cases	66		

Table – IX: Res_gender *Prefer_Cooking_Oils

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.145ª	3	.543
Likelihood Ratio	2.217	3	.529
Linear-by-Linear Association	.070	1	.792
N of Valid Cases	66		

Table – X: Res_gender *Prefer_Medicines

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.446a	4	.486
Likelihood Ratio	4.430	4	.351
Linear-by-Linear Association	2.604ª	1	.107
N of Valid Cases	66		

Table – XI: Res_gender *Prefer_Dairy_Pdts

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.510a	4	.643
Likelihood Ratio	2.464	4	.651
Linear-by-Linear Association	.137	1	.711
N of Valid Cases	66		

Table – XII: Res_gender *Prefer_Health_Drinks

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.541a	5	.354
Likelihood Ratio	6.205	5	.287
Linear-by-Linear Association	.637	1	.425
N of Valid Cases	66		

It has been observedhere from the chi-square results of above tables (from table VII to table XII) that gender has the most significant influence on packaging of Fast Food among all the products presented here. Gender has some influence on other me-too or FMCG products also but not as significant as influence on Fast Foods. So, Marketers of fast food business should deliver their product throughattractive packaging to instigate the stimuli of the consumers'. It leads to increase their sale.

Table – XIII: Res_occupation * Prefer_Health_drinks

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	88.632a	25	.000
Likelihood Ratio	27.154	25	.348
Linear-by-Linear Association	.817	1	.366
N of Valid Cases	66		

Table –XIV: Res_occupation * Prefer_Dairy_pdts

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.106a	20	.943
Likelihood Ratio	12.742	20	.888
Linear-by-Linear Association	.953	1	.329
N of Valid Cases	66		

Table – XV: Res_occupation * Prefer_Medicines

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.432a	20	.999
Likelihood Ratio	6.944	20	.997
Linear-by-Linear Association	.003	1	.955
N of Valid Cases	66		

Table – XVI: Res_occupation * Prefer_Cooking Oils

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.952a	15	.823
Likelihood Ratio	11.868	15	.689
Linear-by-Linear Association	.251	1	.617
N of Valid Cases	66		

Table –XVII: Res_occupation * Prefer_Grocery

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.341a	20	.631
Likelihood Ratio	19.789	20	.471
Linear-by-Linear Association	2.252	1	.133
N of Valid Cases	66		

Table –XVIII: Res_occupation * Prefer_Grocery

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.406a	20	.186
Likelihood Ratio	23.844	20	.249
Linear-by-Linear Association	.039	1	.844
N of Valid Cases	66		

It has been observed from the chi-square results of above tables (from table XIII to table XVIII) that occupation has the most significant influence on packaging of Health Drinks among all the products presented here. Gender has someinfluence on other me-too or FMCG products also but not as significant as influence on Health Drinks.

Table –XIX: Res_income * Prefer_Medicines

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	35.371a	20	.018
Likelihood Ratio	16.843	20	.663
Linear-by-Linear Association	.835	1	.361
N of Valid Cases	66		

Table – XX: Res_income * Prefer_Dairy_pdts

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.212a	20	.159
Likelihood Ratio	24.199	20	.234
Linear-by-Linear Association	.138	1	.710
N of Valid Cases	66		

Table – XXI: Res_income* Prefer_Cooking_Oils

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.531a	15	.288
Likelihood Ratio	16.624	15	.342
Linear-by-Linear Association	.048	1	.826
N of Valid Cases	66		

Table – XXII: Res_income* Prefer_Health_Drinks

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.646a	25	.540
Likelihood Ratio	20.041	25	.745
Linear-by-Linear Association	3.293	1	.070
N of Valid Cases	66		

Table –XXIII: Res_income* Prefer_Grocery

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.915a	20	.948
Likelihood Ratio	13.645	20	.848
Linear-by-Linear Association	.003	1	.957
N of Valid Cases	66		

Table – XXIV: Res_income* Prefer_Fast_Food

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.394a	20	.561
Likelihood Ratio	20.300	20	.439
Linear-by-Linear Association	.453	1	.501
N of Valid Cases	66		

It has been viewed from the chi-square results of above tables (from table XIX to table XXIV) that income has the most significant influence on packaging of Medicines among all the products presented here. Gender has some influence on other me-too or FMCG products also but not as significant as influence on Medicines.

Factor Analysis of purchasing factors of various products

Correlation Matrix

		Pur_Fac _Dairy	Pur_Fac _Cosmetics	Pur_Fac _Beverages	Pur_Fac _Toiletries	Pur_Fac _Grocery	Pur _Cooking _oil	Pur_ Medicines
Correlation	Pur_Fac_Dairy	1.000	.448	.429	.250	.202	.155	.343
	Pur_Fac_Cosmetics	.448	1.000	.521	.376	.154	.128	.284
	Pur_Fac_Beverages	.429	.521	1.000	.532	.247	.398	.280
	Pur_Fac_Toiletries	.250	.376	.532	1.000	.573	.346	.381
	Pur_Fac_Grocery	.202	.154	.247	.573	1.000	.586	.437
	Pur_Cooking_oil	.155	.128	.398	.346	.586	1.000	.438
	Pur_Medicines	.343	.284	.280	.381	.437	.438	1.000

Component Matrix

	Component	
	1	2
Pur_Fac_Dairy	.575	.495
Pur_Fac_Cosmetics	.603	.592
Pur_Fac_Beverages	.732	.334
Pur_Fac_Toiletries	.758	
Pur_Fac_Grocery	.694	-.533
Pur_Cooking_oil	.656	-.497
Pur_Medicines	.671	-.186

Frequency Table of Purchasing Factors

Pur_Fac_Dairy

	Frequency	Percent	Valid Percent	Cumulative Percent
Quality Identification	42	63.6	63.6	63.6
Safety	9	13.6	13.6	77.3
Economical	1	1.5	1.5	78.8
Easy to use	3	4.5	4.5	83.3
Convenience	3	4.5	4.5	87.9
Storage	7	10.6	10.6	98.5
Reuse	1	1.5	1.5	100.0
Total	66	100.0	100.0	

Pur_Fac_Cosmetics

	Frequency	Percent	Valid Percent	Cumulative Percent
Quality Identification	32	48.5	48.5	48.5
Safety	13	19.7	19.7	68.2
Economical	7	10.6	10.6	78.8
Easy to Use	6	9.1	9.1	87.9
Convenience	4	6.1	6.1	93.9
Storage	1	1.5	1.5	95.5
Reuse	3	4.5	4.5	100.0
Total	66	100.0	100.0	

Pur_Fac_Beverages

	Frequency	Percent	Valid Percent	Cumulative Percent
Quality Identification	27	40.9	40.9	40.9
Safety	4	6.1	6.1	47.0
Economical	12	18.2	18.2	65.2
Easy to use	4	6.1	6.1	71.2
Convenience	8	12.1	12.1	83.3
Storage	11	16.7	16.7	100.0
Total	66	100.0	100.0	

Pur_Fac_Toiletries

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quality Identification	19	28.8	28.8	28.8
	Safety	11	16.7	16.7	45.5
	Economical	14	21.2	21.2	66.7
	Easy to Use	7	10.6	10.6	77.3
	Convenience	11	16.7	16.7	93.9
	Storage	1	1.5	1.5	95.5
	Reuse	3	4.5	4.5	100.0
	Total	66	100.0	100.0	

Pur_Cooking_oil

	Frequency	Percent	Valid Percent	Cumulative Percent
Quality Identification	39	59.1	59.1	59.1
Safety	4	6.1	6.1	65.2
Economical	4	6.1	6.1	71.2
Easy to Use	4	6.1	6.1	77.3
Convenience	5	7.6	7.6	84.8
Storage	6	9.1	9.1	93.9
Reuse	4	6.1	6.1	100.0
Total	66	100.0	100.0	

Pur_Medicines

	Frequency	Percent	Valid Percent	Cumulative Percent
Quality Identification	31	47.0	47.0	47.0
Safety	19	28.8	28.8	75.8
Economical	2	3.0	3.0	78.8
Easy to use	2	3.0	3.0	81.8
Convenience	5	7.6	7.6	89.4
Storage	6	9.1	9.1	98.5
Reuse	1	1.5	1.5	100.0
Total	66	100.0	100.0	

Pur_Fac_Grocery

	Frequency	Percent	Valid Percent	Cumulative Percent
Quality Identification	29	43.9	43.9	43.9
Safety	5	7.6	7.6	51.5
Economical	8	12.1	12.1	63.6
Easy to Use	6	9.1	9.1	72.7
Convenience	5	7.6	7.6	80.3
Storage	7	10.6	10.6	90.9
Reuse	6	9.1	9.1	100.0
Total	66	100.0	100.0	

Factor analysis of information provided on packaging

Correlation Matrix

	Manu_Date	Manu_Address	Ingradients	Instr_use	Price	Preservatives	Calorie	Weight	Quality mark	Expiry_date
Manu_Date	1.000	.443	.551	.635	.786	.611	.572	.484	.709	.841
Manu_Address	.443	1.000	.722	.549	.381	.492	.528	.544	.344	.305
Ingradients	.551	.722	1.000	.827	.533	.639	.548	.682	.559	.467
Instr_use	.635	.549	.827	1.000	.624	.584	.461	.572	.598	.556
Price	.786	.381	.533	.624	1.000	.708	.587	.622	.808	.748
Preservatives	.611	.492	.639	.584	.708	1.000	.649	.602	.767	.573
Calorie	.572	.528	.548	.461	.587	.649	1.000	.743	.564	.513
Weight	.484	.544	.682	.572	.622	.602	.743	1.000	.606	.456
Quality_mark	.709	.344	.559	.598	.808	.767	.564	.606	1.000	.718
Expiry_date	.841	.305	.467	.556	.748	.573	.513	.456	.718	1.000

Component Matrix

	Component	
	1	2
Manu_Date	.836	
Manu_Address	.649	.587
Ingradients	.812	.432
Instr_use	.802	.180
Price	.860	
Preservatives	.834	
Calorie	.769	.139
Weight	.788	.269
Quality_mark	.845	
Expiry_date	.781	

Frequency Table of Information provided on packaging:

Manu_Date

	Frequency	Percent	Valid Percent	Cumulative Percent
Not Important	3	4.5	4.5	4.5
Less Important	1	1.5	1.5	6.1
Important	11	16.7	16.7	22.7
Very Important	7	10.6	10.6	33.3
Most Important	44	66.7	66.7	100.0
Total	66	100.0	100.0	

Manu_Address

	Frequency	Percent	Valid Percent	Cumulative Percent
Not Important	4	6.1	6.1	6.1
Less Important	15	22.7	22.7	28.8
Important	16	24.2	24.2	53.0
Very Important	17	25.8	25.8	78.8
Most Important	14	21.2	21.2	100.0
Total	66	100.0	100.0	

Ingredients

	Frequency	Percent	Valid Percent	Cumulative Percent
Not Important	2	3.0	3.0	3.0
Less Important	3	4.5	4.5	7.6
Important	12	18.2	18.2	25.8
Very Important	16	24.2	24.2	50.0
Most Important	33	50.0	50.0	100.0
Total	66	100.0	100.0	

Instruction for use

	Frequency	Percent	Valid Percent	Cumulative Percent
Not Important	1	1.5	1.5	1.5
Less Important	5	7.6	7.6	9.1
Important	8	12.1	12.1	21.2
Very Important	14	21.2	21.2	42.4
Most Important	38	57.6	57.6	100.0
Total	66	100.0	100.0	

Price

	Frequency	Percent	Valid Percent	Cumulative Percent
Not Important	1	1.5	1.5	1.5
Less Important	4	6.1	6.1	7.6
Important	10	15.2	15.2	22.7
Very Important	10	15.2	15.2	37.9
Most Important	41	62.1	62.1	100.0
Total	66	100.0	100.0	

Preservatives

	Frequency	Percent	Valid Percent	Cumulative Percent
Not Important	1	1.5	1.5	1.5
Less Important	4	6.1	6.1	7.6
Important	15	22.7	22.7	30.3
Very Important	12	18.2	18.2	48.5
Most Important	34	51.5	51.5	100.0
Total	66	100.0	100.0	

Calorie

	Frequency	Percent	Valid Percent	Cumulative Percent
Less Important	7	10.6	10.6	10.6
Important	18	27.3	27.3	37.9
Very Important	19	28.8	28.8	66.7
Most Important	22	33.3	33.3	100.0
Total	66	100.0	100.0	

Weight

	Frequency	Percent	Valid Percent	Cumulative Percent
Less Important	8	12.1	12.1	12.1
Important	17	25.8	25.8	37.9
Very Important	16	24.2	24.2	62.1
Most Important	25	37.9	37.9	100.0
Total	66	100.0	100.0	

Quality mark

	Frequency	Percent	Valid Percent	Cumulative Percent
Not Important	1	1.5	1.5	1.5
Less Important	2	3.0	3.0	4.5
Important	10	15.2	15.2	19.7
Very Important	17	25.8	25.8	45.5
Most Important	36	54.5	54.5	100.0
Total	66	100.0	100.0	

Expiry date

	Frequency	Percent	Valid Percent	Cumulative Percent
Not Important	2	3.0	3.0	3.0
Less Important	7	10.6	10.6	13.6
Important	4	6.1	6.1	19.7
Very Important	6	9.1	9.1	28.8
Most Impotant	47	71.2	71.2	100.0
Total	66	100.0	100.0	

It has been noticed from the above Frequency tables (from Manufacturing date to Expiry date) of Information provided on packaging that Expiry date is the most important information as it has got 71.2% (maximum). After that Manufacturing date (66.7%), Price (62.1%), Instruction for use (57.6%) and Quality mark (54.5%) are most important informations for FMCG products. Also it can be observed from the correlation matrix that Manufacturing date and Expiry date are highly correlated (0.841).

Although manufacturing date and expiry date are mandatory disclosure for medicine products.

Principal Components Analysis for Brand Preference

Component Matrix

	Component	
	1	2
Influ_brand_Groc	.640	
Influ_brand_DP	.696	
Influ_Brand_Toiletries	.473	.443
Influ_Brand_Med	.436	.550
Influ_Brand_Cosm	.693	.361
Influ_Brand_Bev	.784	

Frequency Table of brand name & related attributes provided using packaging

Influ_brand_Groc

	Frequency	Percent	Valid Percent	Cumulative Percent
Value	9	13.6	13.6	13.6
Price	10	15.2	15.2	28.8
Quality	31	47.0	47.0	75.8
Brand Name	6	9.1	9.1	84.8
Variety	10	15.2	15.2	100.0
Total	66	100.0	100.0	

Influ_brand_DP

	Frequency	Percent	Valid Percent	Cumulative Percent
Value	4	6.1	6.1	6.1
Price	8	12.1	12.1	18.2
Quality	30	45.5	45.5	63.6
Brand Name	20	30.3	30.3	93.9
Variety	4	6.1	6.1	100.0
Total	66	100.0	100.0	

Influ_Brand_Toiletries

	Frequency	Percent	Valid Percent	Cumulative Percent
Value	9	13.6	13.6	13.6
Price	17	25.8	25.8	39.4
Quality	18	27.3	27.3	66.7
Brand Name	14	21.2	21.2	87.9
Variety	8	12.1	12.1	100.0
Total	66	100.0	100.0	

Influ_Brand_Med

	Frequency	Percent	Valid Percent	Cumulative Percent
Value	9	13.6	13.6	13.6
Price	6	9.1	9.1	22.7
Quality	30	45.5	45.5	68.2
Brand Name	18	27.3	27.3	95.5
Variety	3	4.5	4.5	100.0
Total	66	100.0	100.0	

Influ_Brand_Cosm

	Frequency	Percent	Valid Percent	Cumulative Percent
Value	2	3.0	3.0	3.0
Price	8	12.1	12.1	15.2
Quality	19	28.8	28.8	43.9
Brand Name	29	43.9	43.9	87.9
Variety	8	12.1	12.1	100.0
Total	66	100.0	100.0	

Influ_Brand_Bev

	Frequency	Percent	Valid Percent	Cumulative Percent
Value	2	3.0	3.0	3.0
Price	5	7.6	7.6	10.6
Quality	23	34.8	34.8	45.5
Brand Name	27	40.9	40.9	86.4
Variety	9	13.6	13.6	100.0
Total	66	100.0	100.0	

Here it is observed from the above frequency table of Brand Name and related attributes that for Grocery Products Quality is the main attribute. For Dairy Products Quality and Brand Nameare the main attributes. For Toiletries Quality, Brand Name and Price are the main attributes. For Medicine Products Quality and Brand Name are the main attributes. For Cosmetics Brand Name and Quality are the main attributes. For Beverages Brand Name and Quality are the main attributes. So, Marketers should present above mentioned main attributeson their product packaging more aggressively to instigate the stimulus of consumers'.It can lead to increase of sale from marketer's point of view.

Influence_Layout_purchase

	Frequency	Percent	Valid Percent	Cumulative Percent
Frequency	Percent	Valid Percent	Cumulative Percent	
Strongly Agree	34	51.5	51.5	51.5
Agree	29	43.9	43.9	95.5
May be	2	3.0	3.0	98.5
Disagree	1	1.5	1.5	100.0
Total	66	100.0	100.0	

It is observed here from the above table that packaging layout increases the purchase of a product from consumers' point of view. Here, 51.5 % of respondent are strongly agree and 43.9 % of respondent are agree with this.

Role of digitization

Now-a-days e-commerce industry is growing at a faster rate. So, online purchase has a significant role in profit maximization. For online purchase of FMCG products, consumers' first see the packaging of the products in any online shopping website. So, marketers can instigate the stimuli of consumers' through digitization mode. Also there is a provision for making graphics or layout of important pictures and information about the product through digitized mode of packaging. Therefore, digitization plays a significant role in case of product packaging.

Conclusion

1. In this competitive market packaging may be used as a differentiated marketing tool to instigate the stimuli of the buyers to purchase a product.

2. Consumers' can be influenced to purchase a product.

3. Marketers may increase their sale of a product using packaging appropriately.

Limitations

1. Our research was for FMCG products only.

2. Due to paucity of time and money data source was restricted to a limited number.

3. Primary survey was restricted to Kolkata and its neighbouring areas only. Hence, the results obtained may not reflect national or international situation.

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Emerging Trends in Digitalization of Human Resource Practices with Reference to Selected HR Leaders of Respective IT Industries

*Dr Manu Shukla **

Abstract

Over the past decades we have seen how digitalization has been successful in transforming varioussectors across all the industries including media, education, transportation and retail. Now it is the turn of HR leaders to incorporate digital technologies into their business models to be more customer focussed and proactive. Thus, this paper explores the trends on how incorporation of digital technologies has shifted HR practices from retrospective to predictive analytics. For this purpose, a self- administered questionnaires was send via email to 20 HR managers or HR leaders (at the similar level in the organizational hierarchy) working in respective IT companies in Bangalore and then various statistical tools were used for data analysis. The findings reveals that how digital platforms have replaced piles of paper, filing cabinets and HR desk drawers by a single app and how easy it has become for employees to access any information from anywhere and anytime, this means that business practices have shifted from desktop to mobile and most importantly from business driven to people driven organizations. The study also highlights the reduction in the levels of organizational hierarchy andincreased transparency in work processes for both the employee and the management

***Keywords:** Digitalization, Transformation, Human Resource Department*

Introduction

Gone are those days when employees were allocated workstations, personal computers with a wired telephone lines to communicate across levels, both formally and informally and piles of papers/filing seen at the desk etc. The technological advancements like the use of laptops and mobiles have replaced these traditional methods with a messages or reports being sent to interest groups simultaneously from any location and the most affected department due to digital transformation is the Human Resource Department – via mobile apps, big data analytics and various tools used for salary generation, performance management, recruitment etc.

These digital applications have forced HR leaders across organizations to rethink about their strategies, tools, programs and the methods for effective communication and employee engagement. Human resource leaders of any organization and industry are primarily concerned with managing people and focussing on policies and systems while digitalization means converting information into digital formats. Thus digitalization of human resource means integration of Information Technologies into various functions viz. recruitment, performance management, salary administration, training, learning and leadership using various tools, apps and programs. The digital transformations is accelerating with such a speed that it has become increasingly important for HR leaders to identify new approaches to managing people.This calls to understand the changing trends in Human Resource practices due to changes in technology, tools, systems and programs.

Literature Survey

In the age the digitalization, technological change is seen everywhere and anywhere to the extent that we are also closely monitored by digital devices, henceforth giving rise to the concept of "Digital Citizens" which is becoming increasingly important in the digital era. All business environment are undergoing change due to integration of Information Technology into their business models. Human Resource Management (HRM) is no exception to it. Oxford Economics (2012) has rightly pointed that the technological transformations has reshaped the performance of human resources (HR). HR leaders can now leverage tools to predict or measure things that were difficult manually and were beyond their scope. Studies have also revealed that organizations must embrace digital changes in order to stay pertinent (CapGemini, 2013; Spitzer, 2014; Goldstein, 2015; Deloitte, 2016) and digitalization has been a driving force of change across industries (Deloitte, 2016).

According to Anderson (2017) "transformation is required at the levels in order to create a modern organizational model that has the ability for continuous change and also digitalization permeates everything –everything that can be digitized".

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Furthermore, El-Khoury (2017) argues that digital transformation changes the way the employees interact in the workplace, their career expectations as well as expectations from the employer and also the environment in which they are working. Coster&Westelius (2016) highlighted that computers have increasingly replaced all manual work and programs like Artificial Intelligence (AI) and Cloud-based computing have been successful in replacing many non-repetitive intellectual tasks (Makridakis, 2017) giving access to a big data bank (Shah, Irani& Sharif, 2017). This data analytics can further be used to align human resources with business goals.

From the above literature, it is evident that integration of technology into the system has changed the way organizations operates on all the levels and poses a challenge for HR leaders to plan and manage the future capabilities of their workforce in a digitally changing environment. HR concerns are now revolving around reshaping the business models, rethinking about the strategies and gaining new digital competencies to manage super digital employees.

Problems to be Investigated

Digitalization has impacted almost every organization and industry at multiple levels. Human resource leaders are the most crucial and critical part of any organization and act as spines to your whole body (i.e. organization) that glues together all the values, policies and goals by aligning the chief protagonists for every business that is the workforce towards a common goal. People are the most complex creatures in the planet as each one of us are unique with different values, morals, attitudes, beliefs and culture. The sole purpose of HR leaders is to manage this complexity in the workplace. In this regard the focus of traditional licensed HR was more on filing cabinets, piles of paper on the desk and always surrounded by employees for each and every issue right from requisition, recruitment, on –boarding, compensation management to retention and exit. Over a decade, the technological advancement and Information technology has transformed the shape of the Human Resource Management (HRM) across all organizations. The traditional HR practices have been replaced by a modern cloud computing programs wherein all the relevant information related to employee personal information, capabilities, skill sets, payroll, performance management, time sheets, exit etc. can be obtained from a single app on single click. Laptops and mobiles have replaced desktop giving rise to an information access anywhere-anytime concept. Considering all the above aspects, this paper is an attempt to understand the changes in HR practices due to digitalization.

Objectives

The study is carried out with the following objectives

1. To identify the changing trends in human resource (HR) practices due to digital changes.
2. To study the impact of digital transformation on human resource leaders.

Hypothesis

This study proposes the following hypothesis

H_0: There exists no significant relationship between satisfaction with digitised HR practices and the productivity of HR leaders.

H_1: There exists a significant relationship between traditional HR practices and the productivity of HR leaders.

Research Design

Methods and Types of D`ata Collection

A descriptive and qualitative research forms the basis of this study. Both primary and secondary data is collected through a self-designed questionnaire sent via e-mails and from journals, newspapers and websites. A questionnaire has both open and closed ended questions. A five point Likert scale is used to evaluate the responses of the participants.

Sampling

For the purpose of the study, the primary data is collected from two Information Technology companies headquartered in Bangalore, representing a total population of 30 human resource (HR) leaders having more than six years of experience and are in managerial level in an organizational hierarchy. Out of the total population, 60 percent leaders have submitted their response i.e. 20 and forms the sample of this study. A convenient sampling method is used for data collection.

Statistical Tools Applied

Various statistical tools such as frequency distribution, percentage analysis, coefficient of correlation and chi-square test have been used for analysis and interpretation of data.

Analysis and Findings

Table 1:Analysis of changing trends in HR practices from traditional to digitised

Responses	Rank (In Percentages)				
	Extremely	Very	Moderately	Doubtful	Not at all
Reduction in time spent on day-to-day administration and documentation	30	45	20	5	0
Productivity of HR leaders after digitalization	20	70	5	0	5
Proper time sheet management and salary administration	25	70	0	5	0
Improved work-life balance	15	70	10	0	5
Timely accessibility and easy monitoring to remotely working staff	25	65	5	0	5
Satisfaction with the single tool for sourcing and recruiting potential candidates	35	65	0	0	0
Electronic selection of candidates reduces turnover cost	5	65	10	20	0
Satisfaction with the overall digitised practices	15	75	5	5	0

Responses	Rank (In Percentages)				
	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Increased employee engagement and more clearer lines of communication	45	40	10	0	5
Increased customer satisfaction and better organizational structure with reduced levels of hierarchy	30	60	5	5	0
Pool of global and internal talent and easy access to passive job seekers	35	60	5	0	0
Transformation in leadership style	10	85	0	5	0
Traditional HR practices better than digitised practices	5	30	5	35	25
Drastic change in work culture	10	85	5	0	0
Increased level of personal bias in recruitment, performance management and reporting	5	65	0	10	20
Many Areas needs to be improved	25	75	0	0	0

The above table highlights that more than 70 percent HR leaders believes that there are drastic changes in the HR practices viz. Reduction in documentation, resolving operational queries of employees, reduced turnover cost, minimal levels of hierarchy, increased employee engagement, open lines of communication, productivity, HR leaders satisfaction, customer satisfaction, salary administration, improved quality of work-life, a big data bank for sourcing, recruiting, on boarding, performance management, time sheet management and massive pool of both internal and global candidates. 95 percent opines that there is a drastic change in work culture and organizational structure. Whereas 70 percent leaders feels that there is favouritism or bias in performance management, recruitment and reporting. The data also shows that almost all the respondents opines that there are still many areas of improvement.

Table 2: Correlational Matrix between Productivity, Work-Life Balance and other Variables

		A	B	C	D	E	F	G
Reduction in time spent on day-to-day administration and documentation	A	1						
Productivity of HR leaders after digitalization	B	0.86992626	1					
Improved work-life balance	C	0.859337849	0.992538177	1				
Electronic selection of candidates reduces turnover cost	D	0.713624032	0.889559524	0.911503791	1			
Satisfaction with the overall digitised practices	E	0.849836586	0.989057041	0.990113854	0.94659247	1		
Transformation in leadership style	F	0.800008653	0.980276976	0.983253011	0.9581072	0.99609831	1	
Traditional HR practices better than digitised practices	G	-0.21650635	0.213796527*	0.217060785*	0.4887949	0.29722272	0.37461039	1

*Note: The values marked in yellow are considered for correlational analysis between the variables; *p is significant at 0.05 level of significance*

The above matrix shows that there exists a positive correlation between the reduction in day-to-day administration and the productivity of HR leaders i.e. r=0.869. The calculated Chi-square value (X^2_c =4.132) which is less that the tabular value (X^2_t =9.49) at 4 degrees of freedom and 0.05 level of significance shows that there is no significant difference between the two variables. It is also true when we calculate p-value approach(p-value = 0.388 >0.05).The coefficient of correlation between reduction in administrational/documentation activity and quality of work-life is highly positive (r=0.859) and the calculated Chi-square value is less than the critical value at 4 degrees of freedom and 0.05 level of significance (4.754<9.49) which proves insignificant difference between the variables. The p-value approach further proves the difference as insignificant. Further the Karl Pearson's coefficient of correlation between reduced turnover costs and increase in productivity and also with improved work-life balance is positive but p-value approach proves the difference as statistically insignificant.

While analysing the data in the above matrix between the satisfaction of HR leaders with digitised practices and their productivity, there exist a positive correlation but the Chi-square value and p-value proves the difference to be insignificant. Thus, the hypothesis (H_0) is accepted with a remark that there is no significant difference between the variables.

While calculating the coefficient of correlation between traditional HR practices and productivity of HR leaders is found to be 0.213, which shows a weak positive relationship. After application of Chi-square, the calculated value is 14.667 which is more than the tabular value (14.667>9.49) at 4 degrees of freedom and 0.05 level of significance. Hence the difference between the variables is significant. Also the calculated p-value of 0.005 is less than 0.05 which further proves that the difference is statistically significant. Therefore, hypothesis (H_1) is accepted with a conclusion that there is a significant difference between the variables. Furthermore the data also reveals that there is a significant difference between the traditional HR practices and the satisfaction of HR leaders with the digitised practices.

Recommendations and Conclusion

The findings suggests that there is a drastic change from retrospective to modern or digitised HR practices. Almost 90 percent leaders have expressed their satisfaction with digitalization of processes viz. sourcing, recruitment, performance management, customer satisfaction, minimised level of hierarchy, changes in leadership style, open and clear communication, reduced employee turnover and above all a huge relief from documentation and day-to-day administration of employee data and queries. This paper highlights that there exist a significant relationship between traditional practices, productivity and quality of work life of HR leaders in response to which more than 80 percent leaders believe that digitised practices have influential role in the workplace and is greatly contributing to an increased productivity and work-life balance.

Since the future of any organization or industry depends on its Human Resource Management (HRM), therefore the HR leaders need to be more vigilant and knowledgeable about the application of embedded analytics to ensure an effective management of digital changes among employees and organization.

Limitations and Future Scope

This study has few limitations in terms of size of respondents, anonymity of the IT Companies due to changes in organizational structure and automation of processes and also since the present study is questionnaire based so the factor of participantsbiasness cannot be ignored.

This paper takes us through various changes in HR processes due to digital transformation and their impact of human resource (HR) leaders. Apparently, there are few factors which remains under-researched. As we have seen the changing trends due to digital changes but which pillar of the HR function is most affected and benefitted by the digitalisation remains an area for future research. The results of the findings highlighted that 70 percent of the leaders believe that there is still increase in the level of personal bias in recruitment, appraisal and reporting even after digitalization but what is its impact on an overall productivity on both the organization as well as the employees in today's digitized age pave the way for further research.

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Empowering to create smart Future Trough E-Governance and Digitization- Sectoral Transformation through Digitization

"A study of brand loyalty of shoppers in Mall culture"

Dr. Uma Durgude* & Dr. D. Henry Babu**

Abstract

Retailing is gaining momentum like never before in India. In recent times no other sector has seen growing exponentially like retailing. Many retail formats and patterns are emerging at a rapid pace; many opportunities are seen as 96 percent of Indian retail sector is still unorganized. And also retailers here can learn immensely from the mistakes and short comings of foreign players having global presence and there is a scope to explore full potential of this sector.

Customers are getting newer and unique experience through varied services offered by malls. Shopping for food and grocery items have shown a revolution in retail market in India with the prominent changes in the people shopping behaviour driven by strong purchasing power, changing patterns of life styles and demographic profiles.

The fast increasing shopping malls in Indian subcontinent have almost been a revolution witnessed now; undoubtedly they have become a part of people's life style. Malls are reshaping and rephrasing the standards and rules, developing a their own prescription and constitution and are transforming the basic need for entertainment and shopping experience into a unique factor or phenomenon for deciding one's lifestyle statement. Indian middle class is now looking for facilities like air-conditioning, spacious parking and other amenities for them. Our dazzling new shopping malls reflect India's growth from a static third world country to a dynamic economic superpower meeting the expectations of all strata with international appeal, and India has become web for all shopping lovers through propelling mall culture.

The current research is to study on various factors affecting mall culture, and recommend workable attributes to promote mall culture among Mumbai shoppers. The research has done is on the basis of literature review and empirical study, it was organized in few selected malls in Mumbai and Navi Mumbai covering all parts to represent it as truly cosmopolitan city. The Primary sources of data is collected through research instruments - pre-tested structured questionnaire and interview schedule from mall developers / managers, retailers and shoppers from this region. Research analytical tool SPSS is used for the data analysis. The mall positioning factors and their influences are identified and made few suggestions about repositioning platform for few malls under.

The present study revealed that, Success of a mall is not just making it big and attracting foreign brands. A refreshing and pleasant environment is expected which makes the shoppers to forget all problems of the work and bring down their stress levels. Malls are bringing true smile on the face of mall visitor. All retailers of the mall try to maintain oneness with each other without losing their individual quality. This individual quality should be nurtured through continuous innovation that keeps the bar always high.

The study has come out with various path breaking results that propels the voluminous growth of mall culture in Mumbai, and elaborately discussed and presented numerous academic and managerial implications of vibrant and emerging mall culture. All the findings aroused through detailed analysis of the data followed by inferences and recommendations have been presented in the Paper.

Keywords: Retailing, Unorganized, Aesthetic, Repeat Purchase, Demographic

Introduction

The Journey of retailing turned out to be more organized and aided retail marketing to take a new path. Today's retailers are able to give range of products and services of fine quality and making it a delightful experience. The ever increasing

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demand and want of newness of customers have made the retailers run on toes, they have to anticipate and respond to the wants of consumers. It has become highly challenging to understand the consumer through the organized market in various forms like supermarkets, departmental stores, malls and discount houses. Three basic things that attract the consumer- quality, value for money and convenience, became the important choices.

Review of Literature

Sheelah (2005) in her observation revealed that behavior patterns of weekday shopping differ with weekend shopping behaviour patterns. The uncontrolled shopping visits on weekends have a greater influence than shopping on weekdays.

Masayoshi and Le (2009) observed the shopping frequency in his research. The study shows that convenience, freshness, gender and the presence of children in the house has a prominent effect on the occurrence of shopping.

Srivastava (2008) projected a picture of the retail development taking place in India. His research observed the changing panorama in the retail sector in view of many MNCs and outsized industries entering into this field.

According to Arora, A., and Rahate, V. (2008), Indian malls have transformed shopping from a need based activity to a free time activity, rather more for entertainment.

Objectives of the Study

To study the brand loyalty of shoppers in mall culture

Research Methodology

The research methodology comprises sampling design, measurement of variables, methods of data collection, research instrument, the pilot study which directs to collection of primary data and testing the normal behavior of shop visitors under study and developing the proper bond among different constructs under consideration. The sample size was 68 people visiting malls.

The survey design, using a standardized questionnaire, is considered to be most appropriate research design to collect data. As per survey method, the research design used in the study is descriptive. It accurately and systematically describes the behaviors and characteristics of a monitored phenomenon or a particular population. It also aids in exploring the correlations which may exist between various phenomena.

For analysis the Statistical Package for the Social Sciences (SPSS) will be used. The techniques used are, Correlation and other statistical techniques. The interpretation will be based on analysis, tables and other statistical tools.

Hypothesis: The loyalty of a customer in mall culture largely depends on satisfaction, repeat purchases, and recommendation.

Table 1

Satisfaction Score

	No. of Respondents	**Percentage**
Extremely satisfied	8	12
Satisfied	27	39
Dissatisfied	19	28
Extremely dissatisfied	14	21

Source: Primary data

Table 2

Analysis of ReAnalysis of Recommendation

No. of people Recommended	**No. of Respondents**	**Percentage**
None	18	26
1-10	29	42
11-20	19	28
21 and above	3	4

Sources: Primary data

Table 3

Analysis of Repeat Purchase Behaviour

Repeat purchase	No. of Respondents	Percentage
Definitely buy	18	26%
Probably buy	29	42%
Probably not buy	19	28%
Definitely not buy	3	4%

Sources: Primary data

Correlation of shoppers Mall Loyalty one side, and Shoppers Satisfaction, Shoppers Repeat purchase and Recommendation other side are tabulated below:

		Correlation
	Satisfaction	**0.712**
Loyalty	Recommendation	**0.746**
	Repeat purchase	**0.686**

It is evident from the above analysis that loyalty has very strong correlation with shoppers' satisfaction with 0.712 positive value, its correlation with recommendation is 0.746 and with repeat purchase the value is 0.686.

Scope of the Study

The study will also include the modern practices and sponsor improvements for the same by appreciating the aspirations of the consumers, mall promoters, mall retailers, mall managers and other stake holders. The focus is on to see macro and micro factors influencing consumer in relation to extensive mall culture abroad.

Importance of the Study

Retailers should give due importance to loyal customers as they are cheaper to serve, act as ambassadors to the brands. Retail outlets should have membership programmes to encourage their regular customers and generate more revenues. Theses membership cards and rewards will change customer behavior significantly in favour of retailers. Different types of rewards offered by mall retailers are bonus points, free gifts, and providing regular updates on promotional schemes.

Limitation of the Study

Researcher has taken all measures to ensure that the study design optimizes the ability to achieve the research objective. However there are some factors and limitations that do not validate the study but made to be noticed.

1. This study is restricted to the city of Mumbai &Navi Mumbai only.

2. This study is conducted based on primary data produced through questionnaire and assembled from the respondents shopping across different malls and as such its observations relied on accuracy of data.

Conclusions

Major conclusion of the study is that mall developers have no precision in functional and psychological attributes of shopping mall. Hence this study is an attempt to provide distinctive service quality attributes expected by mall visitors, range of retail outlets, good ambience, demographic profiling of shoppers and aesthetic design. However apart from the above aspects, study also focused on various factors that promote loyalty behavior of mall visitors. Hence it is proved that, 'The loyalty of a customer in mall culture largely depends on satisfaction, Repeat purchase, and Recommendation' has been verified and accepted based on analysis.

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Role of Mobile Data Analytics to Predict the Behaviour of the People in Below the Poverty Line Families in Financial Inclusion

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Abstract

Analysing the data and using the results for the organisational growth has become very crucial for any organisation. The organisation can strive for excellence if it studies the past data to predict the future and to formulate strategies for the future based on the analysis. The research paper attempts to study the analytics of behaviour of people excluded financially through the mobile usage and implementation of strategies for financial inclusion. The secondary data published by world bank is used for the analysis. The financial inclusion model has been developed based on the interview taken by the industry.

Keywords: *Data Analytics, Financial Inclusion, Below Poverty Line Families, Prediction of Behaviour*

Introduction

The Indian Government has emphasised more on digital finance in the recent years. The adoption of modern methods like mobile banking and online payments has become imperative in the financial system to accelerate financial inclusion in the country. Data analytics has become crucial as it increases revenue, enhances customer experience and reduces the enterprise risks. . Thus, the adoption of data analytics has become a necessity to make banking more convenient, equitable and personalized to user needs. As we attempt to deepen financial inclusion goals, implementation of superior technologies and tools like data analytics would play a major role in managing risks, improving operations and cutting costs.

Literature Review

Mohan Jayaraman(2017) summarised in his article that in the next two years huge megabytes of new information will be created every second. This massive explosion of data would facilitate organisations to make more informed decisions based on specialised systems and software. The data available would be beneficial for the financial inclusion as it creates customised communication, personalised service offerings, analytics across customer life cycles, customer profiling and market insights in the industry and banking and financial services sector.

James Militzer (2016) mentioned that psychometrics is substantiation based medium of assessing the persons' capability and inclination to payback the loans established on consumer backedstatistics. It is helpful in creating reliability score for people who do not haveprofound credit accounts in the past. It reduces threat and escalatesadvances, increasing reach to credit. It removes socialprejudice. It also reduces acquisition and operational costs.

Bruno Lepri, Jacopo Staiano, David Sangokoya, Emmanuel Letouz´e and Nuria Oliver (2016) summarised that being capable to preciselyquantity and observecrucial societalpopulation related and cost-effectivepointers is very important to plan and devicecommunityprogrammes. For instance, the area wisedissemination of scarcity and prosperity is used by administrations to make conclusions about how to assignrarefunds and deliver a groundwork for the learning of the factors of cost-effectiveprogress. The magnitude and superiority of profitableinformation available have meaningfullyenhanced in modern years. But, the shortage of dependablesignificantdealings in emerging countries poses a greattask to investigators and government bodies, thus hinderingexertions to markinterferenceseffectually to the backward country like Africa. Lately, many investigators have joined hands to practice cell phone information, public media and satellite images to predict the scarcity and affluenceof wealth of individual users.

Brian P. Kennedy (2013) concluded in his literature how to forecast dues among students in educational institutions by complementingAjzen's (1991) theory of intentional behaviour to embrace the assumption of commercial knowledge. Many college studentsfinished an operationalinvestigationmeasuringassertiveness toward debt, personalstandards, supposedcommunicativemechanism, and monetaryknowledge. Monetarylearning was unsuccessful to forecast purpose to use debt. But, anaffirmativeassociation was seen in the behaviour with reference to loans and loan amount. This information can be matched for the improvement of measures directed to recover money management attitudes of disciples in educational institutions as well as a policy can be framed to outline strategyintended to defendclients from existing advancing rules.

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Roderick M Riensche and Paul D Whitney (2012) summarised that the greatestsafetytestscomprisesocieties. However behaviour is always considered as a subject of study, demonstration of behavioural aspects is at a nascent stage. A great task is to research the behavioural aspects in an effective way through experiments and situational analysis.

Kamath Vani (2010) mentioned that reach to monetary facilities and financial transactions are available to the population of below the poverty line families in India but usage of financial services is not done at this level due to reasons like low disposable income, smaller amounts are saved through informal sources etc.

Objectives of the Study

1. To study the different modes of digital finance available to the rural population.
2. To understand the behavioural patterns of the transactions made by BPL families in India
3. To develop the model to predict the future of financially excluded segment under financial inclusion

Research Methodology

The research is exploratory in nature. The world bank data on financial inclusion for the year 2014 has been considered for the study. Based on this data, the interview was conducted on ten Microfinance Institutions and Banks offering services to the disadvantaged section of the society. The model has been framed on the basis of the discussions with the people from industry.

Data Analysis

As per the World bank data on financial inclusion published in 2014, Out of the total population of India, 53% of the respondents have bank account out of which 6.13% of the respondents reported making transaction from an account at a financial institution using a mobile phone. 33% of the respondents reported that their main mode of withdrawal was ATM. Therefore it is evident from the data that people in the BPL families are aware of latest technologies available for making financial transactions.

As per the data published by TRAI in 2017, there are 1178 million total wireless telephone subscribers and 24 million wireline subscribers in India. It comprises of 678 million urban wireless telephone subscribers and 20 wireline subscribers. There are 500 million wireless subscribers and 4 million wireline rural subscribers in India. There is a large population using the broadband wireless services which amounts to 322 wireless and 18 wireline subscribers. This indicates the scope of data analytics in the telecom sector in India.

Based on the above data it can be analysed that there is a strong subscriber base in the mobile usage by the people in India. Hence mobile usage data can be utilised to study the behaviour of the people at the bottom of the pyramid to bring them under the ambit of financial inclusion.

The Financial Inclusion Model

Prepaid mobile users Big data Credit à   Monitor their Behaviour(Usage of services, Payment pattern, credit facilities in the form of top up, Access to free data)à   Develop the Scoring Algorithamà Score Above Average-à Offer them Financial productsà Financial Inclusion

Conclusion

It can be concluded that Big data available with the telecom companies can be used for understanding the behaviour of the rural population in particular. The data analysis on this data would reveal the behaviour of people for access of financial services at a broad level. The strategies can be developed in this regard for the upliftmentof thepoor.

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Social Media as a Marketing Tool: Opportunities and Challenges

Sujeet Mishra* & Dr. Kamini Khanna**

Abstract

It has been observed that Internet technologies and web- based applications are persistently increasing and in the current scenario, technology is more about linking people rather than linking customers. Social media is a phenomenon that has become an important aspect in marketing mix and revolutionizing the way companies interact with customers. It is a new research field and a quick literature scan reveals that not many studies exist. Nevertheless, these few existing studies without scientific evidence with industry data, have rushed to conclude that the emergence of social media has led to the demise of the traditional advertising mainstream media. Therefore, using a scientific research methodology of case study research, this study was designed to explore whether social media is more effective than the traditional media on a brand management perspective and find the implementation challenges that make it a two face phenomenon. The findings presented in this study conclude that even though social media is more effective than some of the traditional advertising channels, it cannot be implemented in isolation without augmenting it with other forms of traditional advertising channels. The implications are that social media alone cannot single handedly create brand awareness or even develop business.

Keywords*: Social Media, Traditional, Technologies*

Introduction

The emergence of Social Media in today's world has really been tremendous, given the fact that there were times when we communicate externally only via post mails. However, as we Humans grow daily so as our ways of thinking grows as well and today as we speak the globalization has been made easy via social Media. People don't have to pay to send a card abroad to loved ones; people don't have to waste money in sending text messages to friends and families. All we do nowadays is to log on to a phone or computer and I can communicate to the world with just one click.

The impact of social media globally plays a vital role not only in easy and fast communication, but linking business to business together, finding lost ones, chatting, sharing pictures and videos to the world and most importantly it has really been an essential tool in job creation and boosting the economy of many countries.

Getting to term with the name social media can be quite tricky and astonishing when we look around what make up the term social media. Categorically, social media can be explain as an application whereby people advertise and communicate with themselves on a personal level using various methods such as Facebook, Flicker, Hi5, MySpace and Twitter. However, social media is not only patronized for social interaction only, most media firms nowadays capitalize on the rapid growth and fast way to get hold of their audience by posting event listing, press releases, breaking news information and so on.

In general terms, social media enable users to share information and collaborate with each other to create web content and utilize it. It refers to users' activities, practices, and behaviors occurring through media via sharing information, knowledge, and opinions. These technologies are internet-based and they facilitate creativity, information sharing, and collaboration among users indeed, social media puts great emphasis on sharing, participating, and collaborating processes and activities. Social media, social networks and social communities provide a new form of collaboration and communication for users.

Social media marketing is marketing using online communities, social networks, blog marketing and more. It's the latest "buzz" in marketing. India is probably among the first proponents of social media marketing. These days, the organizational cause has replaced the social cause as companies seek to engage with their audience via the online platforms.

In this, we will be studying the effectiveness of social media applications in event organizing as well as various methods of implementing the ever growing applications such as Facebook and Twitter, into essential steps of event marketing.

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Literature Review

With the advances in the internet and the emergence of Web 2.0 & the android mobile phone, the interconnectivity between individuals has expanded on the internet. This development enables customers and businesses to collaborate on the internet (Füller*et al.* 2009). This has emerged through social media,which enable consumers to generate content and have social interactions online via social platforms. There are a number of social platforms that have facilitated information sharing. For instance, Wikipedia, a free online encyclopedia, is one of the most popular platforms and has the facility for users to collaborate on information sharing (Chen *et al.* 2011a). Other platforms with the ability to generate reviews and ratings, such as Amazon, com, enable customers to review and rate products. In addition, members of these platforms are cooperatively interdependent (Chris *et al.* 2008). By using social media, consumers can create content and offer valuable advice to others (Füller*et al.* 2009). This new development has seen online communities and an electronic network of individuals emerge on socialplatforms where members share information globally and quickly (Molly McLure & Samer 2005).With the rise in social networks, a new era of content creation has emerged, where individuals can easily share experiences and information with other users (Chen *et al.* 2011a). The next generation of onlinebusinesses will be based on communities - a good tool for new customer attraction (Bagozzi& Dholakia 2002; Ridings &Gefen 2004). Online communities offer an opportunity to organizations to have a bettercustomer relationship management system (Ridings &Gefen 2004), for instance, giving rise to a new development where businesses can improve their relationship with the consumers.

Need & Scope of Study

In today's technology driven world, people are connected with the social media with there mobile. Mobile phones has become a forth basic need of the human being along with food, cloth and shelter. Thus the social media can help the marketers to connect and interact with people easily and make brand awareness.

Social media marketing is one of the most important types of online marketing where businesses are marketing their products/services and brands on social media websites like Facebook, Twitter, YouTube, LinkedIn, Google+, etc.

As per few research center's Internet project January omnibus survey, January 23-26, 2014 about 74% of online adults are using social networking sites, participating in reviews on shopping sites, appraising blogs; this reveals a substantial rise from 56% in the year 2007. This growth is not restricted to youngsters either as members of Generation X, 35-44 years old join, watch, and offer criticism. A new scientific study confirmed the importance of social media networks in marketing products and services of the small companies; it stated that 46% of today's internet users depend on social networks to take their purchasing decisions. A new released study by (Yes to Digital) site specialized in the digital content, emphasized that 71% of social media network users around the world buy products they detected through these platforms that attracted hundreds of millions of internet users around the world.

Facebook registered 1.79 billion monthly active users as of September 2016, reflecting a year over year growth rate of 16% (Forbes, 2016). In every minute, a content of 300 hours duration get uploaded on the video sharing site called You Tube (You Tube 2017), and access to 13 billion photograph The estimated number of Facebook users in 2013 is almost 1.15 billion users, "YouTube" is used by one billion visitors monthly, while "Twitter" network estimated users are around half billion users. Researcher can then imagine the proliferation and number of reaches that researcher can get to product or service if considered these networks in digital marketing combination.

Of course, social media marketing isn't without its flaws. Just as quickly as users can share your content on social media, they can choose to share an unflattering story about business. Social media users have free rein to post whatever they want. This means that satisfied customers can leave glowing reviews on your pages, but it also means that unhappy ones can leave angry rants about your business. Some of this negative feedback could come from within your own organization. Disgruntled employees have been known to vent on social media about work and their bosses, which makes the entire company look bad.

One aspect of social networking that is especially damaging to marketing campaigns is negative post responses. Unhappy customers or industry competitors are able to post disparaging or offensive pictures, posts or videos and there is not much a marketer can do to prevent these occurrences. Still, negative or other non-constructive feedback cannot be ignored. Social networks must be managed efficiently enough to immediately respond and neutralize harmful posts, which takes more time.

People provide the content, and this is the reason why Social Media Marketing is so scary and challenging for marketers. They do not control the marketing content anymore. Negative word-of-mouth can be spread worldwide in a couple of minutes only. With the explosion of Internet-based messages transmitted through the Social Media, they are now a main factor in influencing many aspects of consumer behavior, such as awareness, consideration, information gathering, opinions, attitudes, purchasing decisions and post-purchase evaluation. International marketers need to recognize the power and critical nature of the conversations being hold by consumers using Social Media.

Objective of the Study

1. To study the Social media is form of Internet Marketing to reach the people and interact with them for brand awareness of the product and services.

2. To study how Social Media Marketing helps a company get direct feedback from customers (and potential customers) while making the company seem more personable.

3. To study the benefits, opportunity and challenges of Social Media Marketing.

Research Methodology

Research can be conducted by using diûerent methodologies and approaches, depending on the nature and aim the research. The methodology applied during theresearch has a key importance, thus special attention must be paid to the entire research process starting from the identiûcation of the problem, determination of objectives, collection, and analysis of data all the way to the conclusions and recommendations,something that was observed during the writing of this paper.As main sources of information, used in compiling this paper, were secondary sources, sources accessible through internet, and the existing literature in the ûeld of marketing in general and social media marketing in particular. Sources used are many scientiûc articles on social media marketing and general literature on marketing, the results of these articles and the opinions of their authors have been analysed and compared to fulûl the aims of this paper. This source have provided suûcient information and material to conduct an analysis of beneûts and challenges that Organisation face when adopting social media marketing, which made it possible to fulûl the aims of this research. The qualitative approach is a method used widely in social sciences. Therefore, pursuant to this, it is evident that the paper applies the qualitative approach as a method to realize the study, as it compares and analyses the work of many authors to reach the objectives of the research.

Social Media as a Marketing Tool

Social media has gained a lot of popularity over the past few years and as a result of this popularity, other traditional Media have experienced decline in both business and popularity. Over the past 40 years, we have experienced a radical change in how business is conducted and how people interact. The introduction of personal computers, the Internet, and e-commerce have had a tremendous impact on how businesses operate and market. Social media takes on many different forms including magazines, Internet forums, weblogs, social blogs, micro blogging, wikis, podcasts, photographs or pictures, video, rating and social book marking. In the world, a socialmedia like face book, twitter, Orkut, my space, skype etc., are usedextensively for the purpose of communication.

The best way to define social media is to break it down. Media is an instrument on communication, like a newspaper or a radio, so social media would be a social instrument of communication. In Web 2.0 terms; this would be a website that doesn't just give you information, but interacts with you while giving you that information. This interaction can be as simple as asking for your comments or letting you vote on an article. Social Media sites are characterized by the inherent functionality that facilitates the sharing of information between users within a defined network. The nature of Social Media allows for the initiation of conversation by either party.

The size of the network is primarily a reflection of the active participation of the audience, as consumer-generated media represents that vast majority of all content. For consumers the true value of a network is measured by the frequency of engagement of the participants. For marketers, endorsement by consumers in the form of friending /following /subscribing validates their efforts and activates a viral distribution of their brand across channels. (Walker, 2009). In general terms, social media enable users to share information and collaborate with each other to create web content and utilize it. It refers to users' activities, practices, and behaviors occurring through media via sharing information, knowledge, and opinions. These technologies are internet-based and they facilitate creativity, information sharing, and collaboration among users indeed, social media puts great emphasis on sharing, participating, and collaborating processes and activities. Social media, social networks and social communities provide a new form of collaboration and communication for users.

In the last few years, different kind of social media networking services have emerged and currently there are innumerable social media channels that connect people to each other. The most popular social network sites that are widely used are; Face book, Twitter, YouTube, LinkedIn and Flickr. In fact, Facebook, twitter and YouTube are the most common channels companies use in their online marketing for creating brand awareness or just engaging with the customers. Though LinkedIn is also widely used by companies, it mainly targets to establish relationship on a professional perspective and slowly becoming B2B channel compared to other three networking sites mentioned above. However, for the purpose of this study, only five most popular social networking services are reviewed.

Social Media Tools

Networks and social networking communities are now "buzz words" blockbuster, where all non-governmental organizations, multinational institutions and governments wish to join and participate to reach online audience. However, this wave does not represent cope with Vogue only, but it's considered an effective and successful field. Herewith, what is social media?

Regular media means: is a one way Passage –in terms of reading a newspaper or listening to a TV report, however, considered as limited opportunities to present ideas and opinions.

Social media means: In a way, it is a two-way path on the Internet given the opportunity to communicate and connect with people we know or who share some of your interests. Your cyber society doesn't considered only a place to find information, but also a place to organize events, express your opinion, share your photos, meet new people, promote your business, and participate in campaigns and many other activities.

There are differences between each type of social media (Facebook, twitter, YouTube, LinkedIn, Instagram, Google Plus, Hangouts, and Circles) and used in different ways for that should decide which of them will be used based on your resources, your target audience, and what you want to achieve from through the means of social networks.

Marketing Through Social Media

In broader terms, the topic of the study is *social media as a tool of marketing and creating brand awareness*, but it is first important to define the terminology "marketing" referred to in the title. Therefore, according to the American Marketing Association, *Marketing is an organizational function and a set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders.* (Marketingpower.com 2012). In the definition above, the key words are "organizational function, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers". From an organization perspective, the aspects of these *processes* referred in the definition above are brand awareness, advertising, public relations etc. Therefore, for the sake of this study, we focus only on one branch of marketing which is brand awareness or brand management as a process of communicating or delivering value to customers as already shown in the definition of marketing by the American Marketing Association.

Chaffey et al. (2003) thus describe internet marketing as *the application of the Internet and related digital technologies to achieve marketing objectives* (Chaffey et al. 2003, 1). These marketing objectives can be realized by use of social media.

Social Media Marketing Adoption Factors

The authors have consulted literature in the ûeld of marketing in general and E- marketing and social media marketing in particular to conduct this study and determine the most important factors that aûect the adoption of social media marketing. Based on this literature review of diûerent theories and methodologies we have examined we will discuss some important factors both internal and external related to technology adoption, which we believe that applies to social media marketing to. So, in the following section we will discuss some of selected factors.

End Users- form literature, this factor has an important inûuence on the technology adoption process from the Organization. Training system in Organization will allow the transfer of knowledge required to make the new tools at the same time modify the worker's attitude towards technology change (Bruque&Moyano, 2007). The lack of technological knowledge combined with li$ le appreciation of beneûts of e- commerce is a major diûculty for Organization (Stockdale and Standing, 2006). Ease of use and usefulness havebeen found to have a positive direct impact on e-marketing adoption by Organization in Egypt (El-Gohary, 2012). Pookulangara and Koesler (2011) also tested the perceived usefulness in research on social media usage, and found statistical signiûcant results.

Those studies conûrm that the end users aûect the adoption of social media marketing,the impact of this factor depends on the technological knowledge of workers within Organization in emerging countries such as Kosovo, Albania and other neighbor countries, if the workers are proûcient technology users this factor has a positive inûuence, on contrary, this factor will be a hold back for adopting social media marketing within organization.

Organizational and Management- Depending on the management objectives, the resources are allocated an innovative type of management increases the resources and human capacities in the direction of adoption of new technologies and other innovative projects (Trafdar and Vaidya, 2006). These organizational characteristics determine the potential adoption and use of social media marketing, for instance, enthusiasm about emerging technologies, comfort with their use on part of managers, and the existence of related experimentation and innovation positively inûuences. Adoption of new technologies (Trafdar and Vaidya, 2006). Therefore, based on this the organizational factor is an important factor on the adoption of social media marketing, it can have a great impact depending on the management style of doing business, if the management has an open and innovative approach the social media marketing is more likely to be adopted if the management has more conservative approach the chances are smaller for social media marketing to be a marketing strategy for those companies. Technological- there are not very well established systems to measure the efficiency of e-marketing, therefore, is difficult to identify sales derived directly from technology, so, it is difficult to measure the return on investment in the case of e-marketing (Gilmore et al., 2007). Trends show that users have become more receptive towards internet, however, there are some concerns about the credibility of technology when it comes to money invested (Curtis et al., 2010). There are still some barriers to Organisation when it comes to use of technology to conduct business, spamming is one of major concerns (Kendall et al., 2001). But, when we talk about technological factor we should have in mind that the technology is changing with giant steps and potential concerns are being addressed very fast. For example, Facebook has a very secure and well established system of social media marketing, and enables Organisation to target

their potential consumers really effectively. Therefore, the technological factor in my opinion may not be considered a factor with negative inûuence, due to very fast development of technology and good use of it form social media to over a various range of marketing options through it.

Business Environment- Technology is used as a competition tool by Organisation, when competition use technology to create a competition advantage, other Organisation tend tostart to embrace that new technology in order to remain competitive (El-Gohary,2012). Therefore, the business environment is an important factor that inûuences the adoption of social media marketing, but that depends on the local environment, in bigger cities the adoption of social media marketing tends to be higher due to more innovative entrepreneurs and more competitive environment. Therefore, it can be said that the business environment has a huge impact on adoption of social media marketing by organization.

Why Businesses Need to Consider Social Media Marketing Services?

Facebook has over 250 million users globally. On an average, 70-100 tweetshappen by the second. An average user on Facebook has 120 friends. This is the kindof enormity Social networking sites espouse and with this comes the license tocommunicate powerfully. But when such large numbers are involved, there is a dangerof something going wrong and when it does, it happens in a big way. An expert shouldbe hired to do what is best for business.

Transparency: No cheat code involved. No black hat techniques allowed. Everythingthat happens in the social networking landscape is fool proof. Companies cannot fakeauthenticity in an attempt to get more people involved. Members can choose toassociate with the company or opt out. Opinions made on social networking platformsare taken seriously and the more authoritative the companies get, more seriously theyare taken.

Reach: It is possible to make mark globally and do it quickly using social networkingsites.

Boost website traffic: Social media is probably the fastest and easiest means ofredirecting traffic to company's website. By simply placing their website URL in theirprofile, the company can have all their profile visitors check out their website and apercentage of traffic is sure to get converted in course of time. This is the virtual wayversion of "word-of mouth".

Branding: Buying a candy may have been impulsive all your life, but if it is discussed ona social networking site, there is likely to get brand conscious even a candy. Socialmedia is a smart way to build brands. Social media platforms are known to be one ofthe most powerful and fast means of branding. Some of the big brands like Coke, Ford,Dell, IBM, Burger King are some of the well-known brands have powerfully used socialmedia platforms to endorse themselves.

Importance and Benefits of Social Media Marketing for Business:

Social Media Marketing is marketing that focuses on people, not products (Diamond, 2008). The products can be presented by the company with as many qualitative features and promotional tools as possible, but what really matters is the comments and appreciations left by the customers.

Also, what is important about Social Media Marketing is that marketer can listen, track and measure what is shared on the Social Media Sites in order to improve the offered message and adapt it more to the customers' needs. Thanks to the Social Media analytics and metrics available, the impact of Social Media on a company's marketing strategy can be measured and evaluated relatively easily.

The main Benefit of Social Media Marketing are Increased Brand Recognition , improved brand loyality, More Opportunities to Convert, Higher Conversion Rates, Higher Brand Authority , Increased Inbound Traffic, Decreased Marketing Costs , Better Search Engine Rankings, Richer Customer Experiences , Social media is effective and inexpensive , Customer acquisition is easy on social media, Social media enables direct customer interaction , Social media marketing can generate more leads/sales etc.

Social media marketing plays an important role in generating leads and thus increasing sales to the businesses. A survey by Socialmediatoday revealed that 71% of social media users are more likely to purchase products from brands that they are connected on social media websites. A study by HubSpot revealed that social media produces almost double the marketing leads than any other marketing method and lead-to-close rate is 100% higher on social media.

Average hours/week spent on online activities worldwide
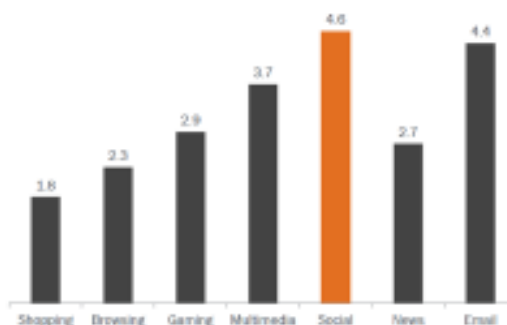
Justification of Social Media Opportunities and Treats

Social media as an opportunity has been depicted by various researchers in the Indian context. According to Sharma (2012), social media has become an important tool to create brand awareness, engage current and prospective buyers by small corporate house. The importance of social media in co creation of advertisements with an important campaign during Pepsi IPL 2015 in India. The motive behind the social media and their usage pattern is also quite valuable in enhancing companies' performance. Social media marketing when integrated with existing CRM system positively enhance companies' performance of IT firm and develop a firm's distinctive competency.

On the contrary, social media has also made the customer powerful and has destabilized the situation for companies by exposing negative publicity, consumer attacks, and status damage. The advent of social media has roped in several threats to companies. Customer can easily create control and share data with bigger audience and friends. Such interactions and market players via social media and can reach wider audience. Hence the power of customer challenging to respond to consumer attacks.

Conclusion

The findings presented in this study conclude that even though social media is more effective than some of the traditional advertising channels, it cannot be implemented in isolation without augmenting it with other forms of traditional advertising channels. The implications are that social media alone cannot single handedly create brand awareness or even develop business.Most of the industry expert claims that, if you are not on a part of Facebook, YouTube, and second life, then you are not included in cyberspace. Social media helps companies to remain engaged with the cusumers directly, timely and relatively at the lower cost and high efficiency as compared to the traditional communication tools of marketing. This is the reason due to which social media is highly relevant for large MNC's and even fornon-profit governmental agencies.

Challenges and Risks of Social Media Marketing

As we discussed above, Social Media Marketing oûers a large variety ofpossibilities in terms of Social Media channels available, and a large a lot of beneûts, such as those mentioned on the beneûts section. However, Social Media Marketing also requires knowledge and a lot of work, and of course has its own challenges and risks before achieving success that is worth to mention (Stelzner, 2014).

Social Media Marketing may not always be easy to use or cost eûcient. Sometimes, depending on the business type, size and age and management style, hard eûorts need to be made in some areas. First, need to engage human and time resourcesto manage their Social Media presence. An employee, and sometimes a group of employees, needs to be ready and able to communicate with customers' and respond to their feedbacks and complaints on daily basis. Employees engaged in Social Media activities should be highly skilled and trained in order to respond eûectively to every question and complain that consumers have, they should be able to manage and control the possible negative comments before they are seen from hundred or thousand people. Also, Social media employees has to be very active and produce new content regularly in depending on the type of organisation in order to stay in the radar of the consumers, this is important because helps organisation create a continuous communication with their consumers. But Organisation need to be careful not to publish irrelevant content that o" end that because some people ûnd this behaviour annoying.

Besides, the outcomes of the Social Media Marketing need to be controlled and measured in order to understand how eûcient this strategy is, and determine whether this strategy is working and what is not. Some Social Media Marketing channels might be more efficient than others for Organisation, while others are not, depending on the typeof business and consumer target, and they can be considered too time-consuming and expensive comparing to its beneûts. However, as was mentioned before it is quite difficult to measure the return on investment, when it comes to Social Media Marketing. Measuring social media return on investment is a very difficult task. This may be considered a serious challenge for implementing Social Media Marketing from Organisation, the impossibility to measure results of Social Media Marketing disables them to know which channel is the best way to go, and they may implement a total useless strategy, losing time and money without a real impact on improving their brand reputation and sales (Gilmore et al., 2007). Furthermore, Organisation also face other major risks such as reputational, legal and operational. One of the main risks for Organisation using Social Media Marketing is potential damage their reputation by using their Social Media sites ineffectively. Overuse of advertising, presenting products and services in a commercial way and trying too hard for sale often is seen very badly the audience, which might get annoyed and unfollow the business on Social Media. Employees can also damage a firm image really bad, by showing bad behaviours on Social Media channels or posting embarrassing information. Therefore, reputational risks can easily equal or exceed the reputational beneûts of Social Media Marketing.

Secondly, Social Media makes a whole new world of privacy, security, intellectualproperty, employment practices, and other legal risks possible. The Social Media employees need to understand information technology law before engaging in social media activities. Security and operational risks are also high and may be considered a hold back for adoption of Social Media Marketing, security risks occur when malware, viruses or spyware are downloaded through the Social Media sites, security concerns are a major negative factor, because Organisation are afraid that they may be the victims of ûnancial risks through diûerent viruses and spywares. Also, there are intellectual property and media risks concerning the protection of third-parties or the publication of fake positive reviews.

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Digital Transformation in Indian Taxi Market-wrt. Ola and Uber

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Abstract

Travelling has always been most important phenomenon of everyone's day-to-day life. Humans have ample number of modes to rapidly and safely move from one place or location to another. Among those modes role of current trends in taxi-market, especially Ola and Uber is really instrumental. The role of digitization in their business model is highly appreciable and commendable. The purpose of this paper is to understand how Ola and Uber works and understanding use of mobile app and other technological features, which helps them to work efficiently.

Qualitative analysis has been used in this paper and methodology focuses on exploring the field of taxi market especially with respect to Ola and Uber. In this paper, business model, role of digitization in taxi market as well as merits and demerits of Ola and Uber is highlighted.

Keywords: *Digitization, Taxi-Market, Ola, Uber*

Introduction

Modern Transportation and Taxi Services

In recent years, travelling is the most important phenomenon of everyone's day-to-day life. Humans have ample number of modes to rapidly and safely move from one place or location to another. Every mode of transportation has certain advantages and limitations. The advantages may be travel convenience, last mile connectivity etc. and the limitations may be lack of proximity, affordability, availability, etc. But in Urban transportation it is futile to think for other modes of transportation other than Taxis and with the urbanization and the complexity of car parking, demand for taxi has increasedenormously.A taxi or a cab, is a means of transportation for hire with a driver, preferred by a single customer or group of customers. A cab carries customers at differentlocations. This is different from other modes of public transport where the service provider is decision maker regarding, pick-up and drop-off locations.

About Uber

Uber Technologies Inc. is an American Multi-National company headquartered in San Francisco, California. According to its business model,Uber customers can simply click their smart phone and a cab arrive at their location in short time. It is part of a personal transportation network that brings together the available drivers and passengers who need a service through a handy and user-friendly smart phone app. It is operational in 81 countries and across 563 cities worldwide.

Uber was founded as Uber Cap by Travis Kala nick and Garrett Camp in 2009 with a seed funding of $ 2,00,000. It is estimated that approx. 50,000 new drivers & users register for Uber. An average number trip made through Uber are 1 million.

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Figure 1
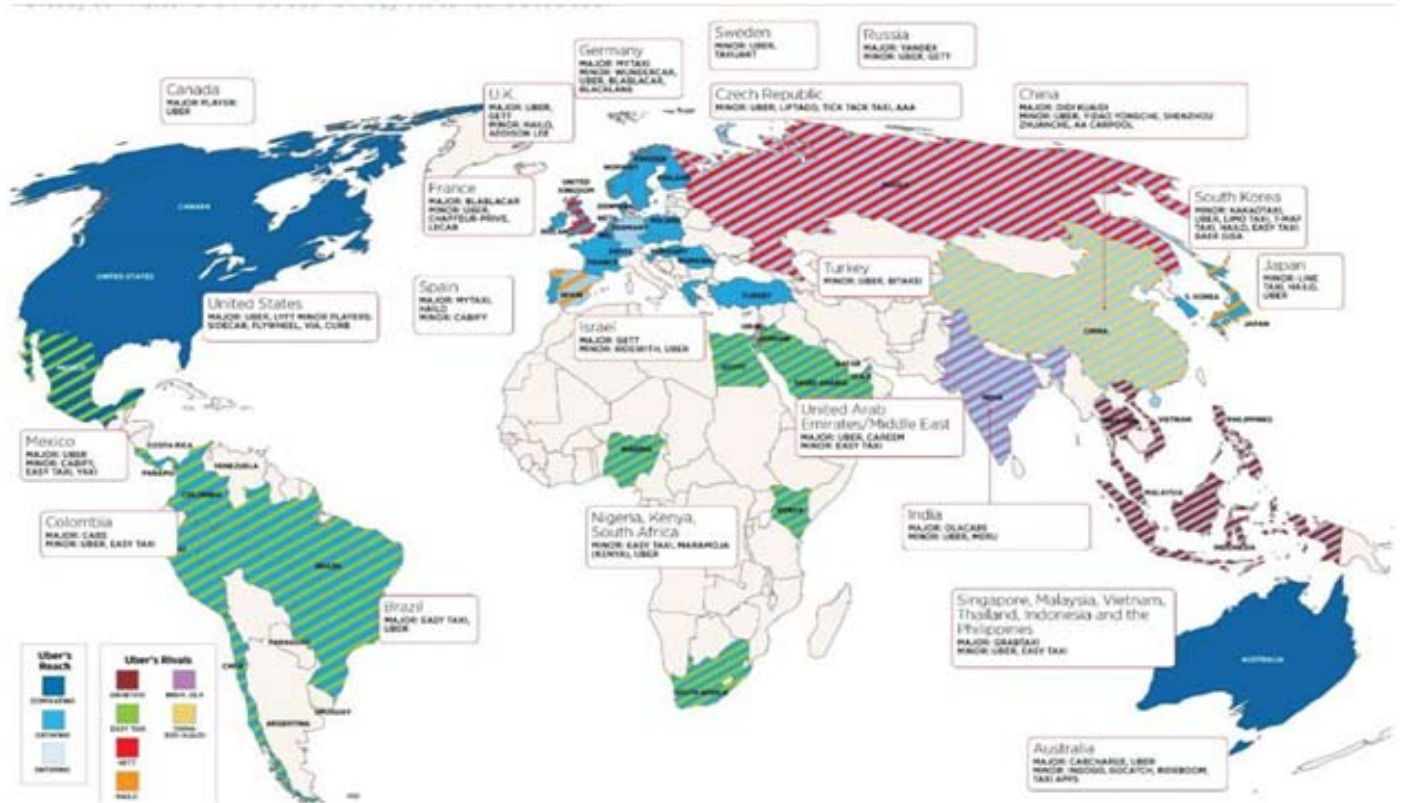
Source: 1 (Chen, 2015)
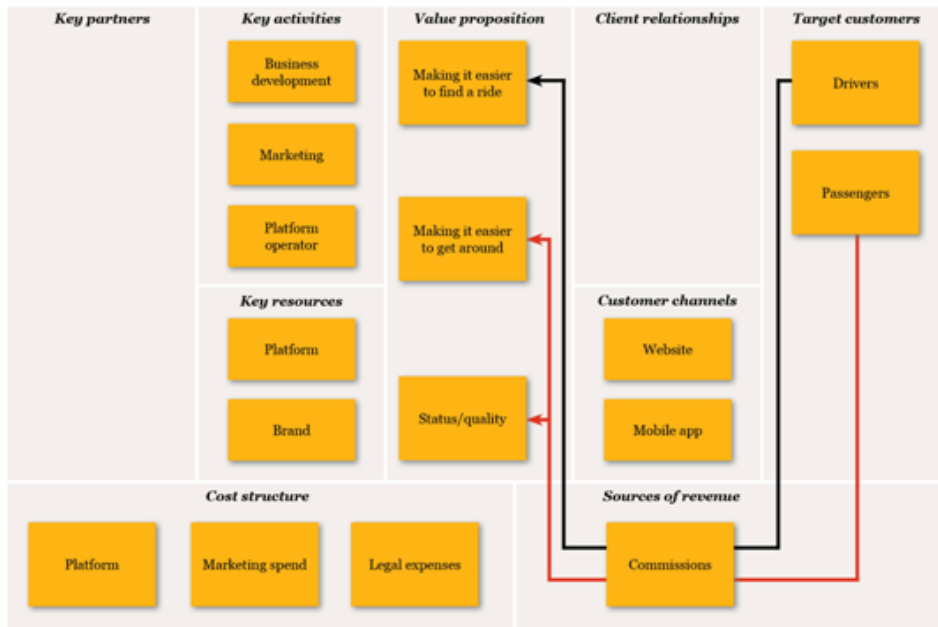
About Ola

Ola, is an Indian online transportation network company registered under ANI Technologies Pvt. Ltd., India's most popular mobile app for transportation, integrates city transportation for customers and driver partners onto a mobile technology platform. It is India's fastest growing companies,which ensuresconvenient, clear and rapid service fulfilment using technology to make travelling hurdle free for everyone.

Ola Cabs is an online cab aggregator based in Bengaluru (Currently)and among the fastest growing taxi hiring firms.Taxi booking facility is availed through app and website. Founded on 3rd December'2010 by Bhavish Agarwal(CEO) and AnkitBhati.By 2014, the company has expanded to a network of more than 18000 cars across 65 cities and more than that.Ola diversified its business by incorporating autos on trial basis in Bengaluru.Post the trial phase,Ola Auto expanded to other cities like Mumbai,Pune,Delhi etc.in November 2014.In April 2015, over 40000 cabs are registered & successfully running across 22 cities of India.
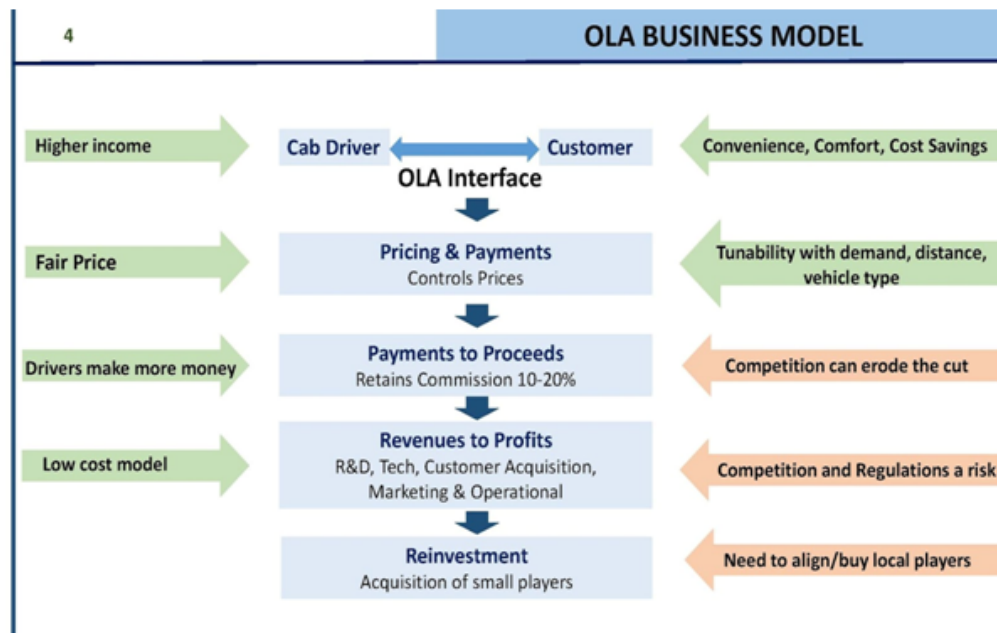
Digitization in Ola and Uber

Olacabsis the pioneer in India to launch an application which allows customers to book a cab by just clicking on your phone. Having gained traction in Mumbai, the company is now expanding to Pune and Delhi and other cities

With a few taps on the Ola Cabs applications or Ubercabs application on any of the android-based phones, users can call a cab. The company uses GPS technologyto let users book a cab.

The application allows the users to see the cabs available within their vicinity. A user can also see the cab moving towards their location on the map of the application. Once the cab is booked the application displays the driver's information. The driver calls only when he has reached the destination. The application is similar to Uber Cabs Services in the US, which is operational in similar way in some of the Indian cities.

The mobile app is not what makes Olacabs different from the several radio taxi services that have sprung across the country.

Unlike other radio cab services provider, Olacabs are an aggregator of car rental service. The company does not have any inventory of cabs.

Olacabs is addressing point-to-point cab services, outstation cab services and full-day rental services. Totally there are around 600 suppliers on board with 1,000 cabs in Mumbai. In Bangalore where it started services a month back, it has 100 suppliers, and Delhi which is still in pilot mode also has 100 suppliers.The company claims to do 2,000 bookings on a daily basis

Literature Review

1) Utsav Pandya ,Rishi Rungta,GeethaIyer, in paper titled "Impact of use of Mobile Apps of Ola Cabs and Taxi for Sure on Yellow and Black Cabs", explained the effect of the private taxi market on the public taxi market. They concluded that the independent variables like the technology trends, comfort, safety, price, ease of availability and the payment options are indeed affecting the public taxi market.

2) Dr. Ruchi Shukla, Dr. Ashish Chandra & Ms. Himanshi Jain in paper titled "OLA VS UBER: The Battle of Dominance",done a comparative study of two of such taxi aggregators that have radically changed the way. They stated that the motive is to increase market share and achieve economies of scale and at the same time providing customer satisfaction. This paper tries to explain the trends of India's taxi market by studying various factors like the pricing strategies, market share, revenue positions, etc.

3) Dr. P. Kishore, Dr. N. Ramesh Kumar in paper titled,"A Study on Factors Influencing the Consumers in Selection of Cab Services", examined the factors which influence the consumers while selecting cab services by taking 'coupon redemption behavior' as the dependent variable and are innovativeness and price consciousness as independent variables. Correlation, regression and descriptive statistics were used as statistical measures. It is found out that consumers are interested to use coupons while selecting cab services. They found out that consumers are feeling comfortable to redeem coupons through mobile apps for booking cab services. Itis concluded that there is rigid competition in the organized cab services industry therefore organization need to motivate consumers through coupons.

4) Ms. RuchikaMalikin paper titled, "A Case Study on the Cab Aggregator Giant: Ola" explained that the taxi aggregation risen up in a hyper competitive market to attract and retain driver partners in order to influence customerdecision. This case explains that keeping drivers happy is the major way to match supply and demand.

Objectives

1) To study Business Process Model of Ola and Uber

2) To study merits and demerits of Ola and Uber

3) To understand role of digitization in Ola and Uber services.

Research Methodology

The idea about this paper was generated on the basis of exploratory research carried using the secondary data. Extensive literature and article review was done in order to understand the various aspects of Ola and Uber, especially role of digitization and their working models as well as other related details. Several reports from Business Standards have proved quite useful data in highlightingthe current trends of taxi market in India.

Data Collection

Ola Versus Uber - A Comparison

Category	Ola	Uber
Founder	Bhavish Aggarwal-2010	2009,in India in 2013 (Travis Cordell Kalanick)
Market	India	Worldwide
Presence in cities	102 cities	29 cities
Strength of Vehicles in India	450,000	250,000
Vehicles type	Cars and auto rickshaws	Cars
Mode of Payment	Ola wallet, credit/debit card and cash	Paytm wallet, credit/debit card and cash
Services offered	Transportation, food delivery and grocery	Transport

Source: Indiatravelforum.in

Comparison of Ola and Uber

Category	Ola	Uber
Application	Easy to use but crashes at times	Easy to use
Booking Experience	Easy to book during off-peak hours and during real time bookings but pre-booking feature is a mess	Easy booking process
Availability	Widely available throughout the country	Available in less cities
Drivers	Good as well as bad	Good as well as bad but good in number
Fares	Higher to some extent	Lower to some extent
Customer Service	It lacks in proper training and doesn't listen to customer complaints	It is very good in customer service and listens to customer complaints.
Payment Options	Cash,Paytm,Debit card	Cash,card payment

Source:Indiatravelforum.in

Findings

Ease of Use

Both of those apps offer easy functionality. Both Uber and Ola have the simple design. Home page on screen of both the apps guides the customer through maps about availability of cabs nearby. Both of the apps offer customer, WiFi enabled cabs with online payment methods available.

Bookings

Bookings are quite easier with both of the apps. Passengers will get an approximate estimate for their trip even before actually set out on the tour.

Pricing

Uber is cheaper than the Ola cabs. Ola cabs has a pricing of ofRs. Eighty for the first four kms and Rs.Ten per km, a flat rate of RsHundred for the first Four kms and Rs.Eight/km.The rate varies from metro to metro.

Safety and Controversies

There have been safety violation incidents reported recently. There have been incidents involving the abuse and harassment of women in case of both the services. They do have code of ethics guidelines for proper behaviour.

Merits and Demerits of the Services

Ola Cabs Merits

- It is an Indian startup company and has a good knowledge of Indian customers.
- It is more popular among customers due to aggressive marketing through electronic, social and print media.
- The service is present in 122 cities and has a good deal of drivers.

Ola Cabs Demerits

- The condition of the vehicle is not as good as Uber.
- Drivers have payment issues.
- Lack of innovation techniques.
- Cancellation Issues.

Uber Merits

1. Technologically most advanced and user friendly.
2. Has much experience in the field.
3. The company has global presence.
4. Drivers are stated to be qualified and better mannered.

Uber Demerits

1. The service is not much visible compared to Ola.
2. Marketing Practices are less, so it lacks awareness among customers.
3. The service is not available in many Indian cities.

Conclusion

Indian taxi industry had witnessed a rapid growth in this decade. In that Cab Aggregation using Mobile Application, which is a result of digital transformation made the transportationaffordable and trouble-free for all categories of people. Among all players in this industry, Ola and Uber have changed the overall face of Indian Taxi Industry. OLA and Uber have adopted innovative practices and always tried to keep designing new packages and offers to attract the customers. The paper had tried to precisely cover the business process model of both the competitors as well as the merits and demerits of both are also been high lightened.In this way services like Ola/Uber are coming up and will increase its use in the future with more advanced technology.

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Enhancing Eco-tourists Satisfaction Through Digital Intervention at Velas-Village

Chitralekha Navneet Kumar* & Prof. Dr. Dipin Mathur**

Abstract

The United Nations sustainable goals have highlighted that there has been a global shift in the priority of the tourism stakeholders. Their perspective from merely economic benefit is now shifting to preservation of nature and community well-being of the natives. With this backdrop the present paper aims to identify the impact of digital intervention on enhancing the tourist's satisfaction at the Velas village on the Konkan belt of Maharashtra. The beach of Velas village accounts for 40% of the total Olive Ridley turtles nesting that occurs on the 720km-long coastline of the Maharashtra state. The Villagers once harvested, ate and sold these endangered turtle eggs due to lack of awareness. A chiplun based NGO-Sahyadri Nisarga Mitra initiated the nest protection by enlightening the locals about its importance and benefits. Now the village celebrates turtle festival every year when the hatchlings take their slow dash to the sea. The village strictly follows ecotourism model that restricts any damage to the environment and promotes villagers economic condition. The digital interventions have supported the spread of positive eWOM (electronic word of mouth) for the turtle festival. Present paper identifies the role of technology on the ecotourism attributes at velas and reflects its importance towards satisfaction of tourists. Findings of the study identified: -Environment, Infrastructure & Accessibility, Cultural & Social, and Leisure / Entertainment& Local food as the attributes that leads to greater satisfaction among the Eco- tourists due to the intervention of the technology. The paper concludes thatstrong policy planning and management are helpful in improving the natural, the social, the cultural and the economic aspects of the area through digitalization. Through technology the velas villagers provide direct experiences and education to the tourists about the conservation of turtles. Such practices must be encouraged and the local community, economic agencies, government and non-government organizations can work in collaboration towards promoting Eco-tourists satisfaction through the intervention of technology.

Keywords*: Ecotourism, Satisfaction, Technology, Digitalization, Conservation*

Introduction

The Konkan coast of Maharashtra is a paradise for beach lovers. It's natural surrounding and rich biodiversity is a boon to the nature lovers. The Velas village on this belt provides the tourists and the urban dwellers an opportunity to experience rural "Konkani" lifestyle with easy accessibility and less time consuming trips. Ecotourism has emerged as a manifestation of alternative tourism (Weaver, 2005). Sarkar (2016)had mentioned about ecotourism as a simple word that means management of tourism and conservation of nature.The International Ecotourism Society(TIES, 2015) defines ecotourism as a responsible travel to the natural areas and involves conservation of the environment and the well-being of the local residents. In the last decade, the Indian tourism sector has witnessed rapid growth. Tourism contributes to almost 8.7% of totalemployment and is expected to support 9% of total employment by 2026 (WTTC India, 2016).

For any tourism destination to flourish, it is important to understand the parameters that contribute to tourist's satisfaction. Literature reflects that understanding tourist's satisfaction has always been crucial as it impacts the economy positively (Petrick, 2003). Information and Communication Technologies have brought an instrumental change in the modern travel and tourism industry. Researchers have reflected that ICT- enabled tourism has brought about digitalization of value chains and all other processes (Buhalis & Deimezi, 2003). The user generated content, web applications, social media or web 2.0 have intensified the role and impact of technology in tourism sector (William & Martell, 2008; Carroll, 2006). The ecotourism explorer by TIES, Planeta.com and ecoclub.com are some of the sites increasingly being used by ecotourism consumers and activists (Salkin, 2010).

Present paper identifies the impact of technology toward promoting tourists satisfaction in the ecotourism destination of velas village. This village is famous for its Turtle festival where the Olive Ridley turtles (Lepidochelys Olivacea) are conserved and their hatchlings are released in the ocean. The villagers are whole-heartedly involved in this entire process through the support from a local NGO named "Sahyadri Nisarga Mitra".

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Objectiv

The major objectives of the present study are

- To identify the role of digitalization in promoting ecotourism at velas.
- To identify the technology enabled ecotourism parameters that improvetourist's satisfaction.

Literature Review

Tourism industry is presently one of the fastest growing industries with major emphasis on promoting ecotourism globally. The term ecotourism is not new as its concept was developed in 1970s and 1980s. That period was noticeable for many activities towards ecology and healthy environment across the globe. The word ecotourism was coined by Ceballos-Lascurain in early 1980s (Thompson, 1995). Academic literature has played a greater role in nurturing the interest of ecotourism over the other alternative tourism (Mc Kercher, 2010). The ill effects of mass tourism has provided for a logical shift towards the concept of alternative tourism. Starmer & Smith (2004) had predicted in their research about the triple fold growth of ecotourism destinations by the year 2024 as compared with the conventional tourism destinations. Another research work reflected the need of transformation in the tourism activities related to the Great Barrier Reef and the importance of ecotourism towards environment conservation (Zeppel, 2012).Tourist's satisfaction is of utmost importance in promoting growth and development in the ecotourism destination. Visit to an ecotourism destination is a complex experience because some parameters may be satisfying while others may not. Barala, Sterna & Hammett (2012) had presented their findings about ecotourism satisfaction from guide facilities in the Nepalese conservation area. Tourist's satisfaction from tourism attributes varies greatly. Researchers have argued that the dissatisfaction must also be studied as a separate dimension in satisfaction studies (Gregory and Parsa, 2013). The tourism sector is vulnerable to negative eWOM, hence it calls for research in this area to expand in the technology space as well (Spark and Browning, 2010).

The concept of ecotourism broadly revolves around carrying out the tourism activities in their natural environment by causing minimal negative impact on it.F. W. Theobald (2005) has synthesized the previous researches and presented the elements involved in the ecotourism development. Figure 1 represents his model.

Figure 1: The elements of Ecotourism development

Source: F.W. Theobald (2005), Global Tourism

The element of *Respect for ecosystem integrity* involves, emphasizing the importance of the natural environment in supporting tourism, controlled development under local management and the compatibility of the planning and the environment.It deploys local working forces with equipment's facilities directed towards energy conservation, recycling, and use of natural resources, preserving flora and fauna and using sustainable technologies. *Local participation* is the second most important element of ecotourism development. It aims at maximum participation of the local communities through transfer of property and administration.

It also includes creating opportunities for local projects and transferring complete control and management to them. There is promotion of socio-cultural "pride" through community programs complying with local ideologies and inheritances. The third element involved in developing ecotourism is about generating *economic opportunities for the local communities.* This involves creating jobs for the local residents and protecting the local population. Inclusion of the local communities in political decision making and equitable distribution of the economic benefits and appreciation of the local services and hospitality are the key features in the ecotourism development. Broadly, we can say that ecotourism represents sustainable tourism that would involve nature conservation and improvement of the socio-economic structure of the local communities.A study on consumer generated media (CGM) showed a significant facet of web 2.0, in the context of four major tourists market highlighted that CGM applications need to be country specific (Gretzel et. al, 2008). In the same year another study reflected that communities in the social media like Trip Advisor had significant impact on image destination (Miguens, Baggio and Costa, 2008). Piller et. al (2011) had highlighted in his work about the "bad mouth" traps of social media that can create negative impact on business development.

Research Gap

The academic literature provides evidences for the impact of digital intervention on tourism sector. However there are fragmented documents with respect to ecotourism and the impact of technology in tourist's satisfaction. Present paper is an attempt to bridge the gap through ecotourism studies in velas village of Maharashtra.

Research Methodology

The research follows a mixed method approach that involves both quantitative and qualitative data. This approach provides a better understanding of the research problem than either one method. **By mixing both quantitative and qualitative research and data, the researcher gains greater understanding and corroboration of each approach (Creswell, 2003).**Through random sampling technique primary data has been captured from 100 respondents.

Data has been collected during the turtle festival on 25th and 26th March 2017. The questionnaire was designed giving emphasis on three important aspects; role of technology as source of information, most effective online social network and highly opted medium for post-visit experience. 24 interviews were conducted to identify the attributes that were most satisfying to the tourists at velas village.

Data Analysis

The analysis of the data reveals that most respondents (75%) visit velas village with friends and family. 70% of respondents were in the age group of 24 to 35 years. About 71% of the respondents stayed at village home stay facility for 3-5 days during the festival. 72% respondents were in the income group of 30,000- 50,000 rupees. 90% of the respondents were graduates.

In terms of the source of information about velas village and the turtle festival, 96% of the respondents found internet as the most important source of information. The most effective source of information was found to be "online social networks". It got the highest approval of the respondents with a mean of 3.71 (Table 1). These online social networks include sites like Trip advisor, Planeta.com, Facebook, Twitter, travel blogs and other social networking sites.

Most widely used and effective tools as identified by the respondents were "Facebook" followed by "Twitter" with a mean of 4.18 and 4.13 respectively (Table 2). Facebook/ Twitter were the highly opted medium for sharing post-visit experience to velas villagewith a mean of 3.00 (Table 3).

The interviews revealed that - Environment, Infrastructure & Accessibility, Cultural & Social, and Leisure/ Entertainment& Local food are the attributes that leads to greater satisfaction among the Eco- tourists due to the intervention of the technology. 90% of the interviewees agreed that environmental conduciveness for turtle hatchlings and conservation process of their natural environment was shared through online means by the home stay providers.

Findings

The study reveals that the tourists were reasonably satisfied with the ecotourism attributes and the turtle conservation process at velas village. The results show a strong impact of technology (internet) in disseminating information about the turtle festival and the ecotourism activities at the velas village. The respondents identified that online social networks are the most effective source of sharing travel information, dates of the release of the olive riddle hatchlings into the ocean, about food and other leisure activities. The online social networks included sites like Trip advisor, Planeta.com, Facebook, Twitter, travel blogs and other networking sites. The home stay providers had posted their standard rates for per night stay along with their contact details and the pictures of their facilities, food and cultural activities. It was found to be standard across the village for all the tourists. Some provisions for exclusive rooms were also shared on Facebook based on the availability during the turtle festival. This information on internet and social networking sites was most effective and widely used by the respondents.

The highly opted medium for sharing post-visit experience to velas village was found to be Facebook followed by twitter. Some of the respondents also used blogs to share their experiences in details about their stay, watching the hatchlings, nearby beaches, forts and temple visits.The interviews revealed that the tourists were satisfied towards the ecotourism practices followed in the village. Environmental conduciveness for the turtle hatchlings and the do's and don'ts related to the conservation process were shared by the village volunteers through mobile application,Google maps were utilized by most of the tourists for the Infrastructure & Accessibility of the village for transport and stay facility, The Cultural, Social,Leisure/ Entertainment& Local food were shared in advance via internet by the home stay owners with their respective tourist guests. The variety of Konkani food or any other food (based on the availability) desired by the tourists was mentioned in advance through tourists/ travel guests for the easy communication to the home stay owners via mobile/ internet bookings. This was overall an enriching experience for most of the respondents and the intervention of technology further added to it.

Limitations

Present research is limited to the specific ecotourism parameters as identified by F.W. Theobald. Also, due to limited time availability, present research includes only 100 tourists for survey and 24 interviews of tourists who visited velas village during the turtle festival in the year 2017. The number of tourists as respondents can be further expanded in all future research work. New theories and models of ecotourism can be tested for technology enabled experiences of the tourists.

Managerial Implications

The findings of the study are useful for the decision makers to understand the real need for institutionalizing technology aidedtools and to suits the requirements of the tourists. The findings from the interviews of the touristsis indicative that to better implement the ecotourism model it is important for the stakeholders involved in the tourism sector to integrate technology in their standard operating processes. The ecotourism policy makers and other tourism authorities may consider the desired transformation from the technology perspective and consider a revision in the traditional ways of sharing information to online social media. The findings are also supportive of theoretical advancement in the field of ecotourism studies.

Conclusion

The adoption and utility of technology for better managementof ecotourism destination like velas village has a positive impact on experiences of the tourists. The tourists have identified that Environment, Infrastructure & Accessibility, Cultural & Social, and Leisure/ Entertainment& Local food are the attributes that leads to greater satisfaction among the Eco- tourists due to the intervention of the technology. The social media platforms like Facebook and twitter may be utilized by the tourists as well as the other stakeholders for better dissemination of important information.

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Annexure

Table 1: Source of Information
Statistics

	Tourism Websites	Online Networks	Travel s Operator	Print Media	Word-of Mouth	Tourism Offices
Mean	3.3900	3.7100	3.4300	3.5000	3.4700	3.2700
N	100	100	100	100	100	100
Std. Deviation	.52982	.60794	.55514	.57735	.64283	.58353

Table 2: Effectiveness of online networks
Statistics

	Trip Advisor	Planeta.com	Facebook	Twitter	Travel Blogs	Other networking sites
Mean	3.4900	3.5900	4.1800	4.1300	3.5200	2.9000
N	100	100	100	100	100	100
Std. Deviation	.54114	.63715	.70180	.77401	.62732	1.02986

Table 3: Sharing post-visit experience
Statistics

	Word-of-mouth	Blogs	Facebook/ Twitter	Tourism specific sites	Other internet mediums
Mean	1.0000	1.3800	3.0000	2.0800	.7000
N	100	100	100	100	100
Std. Deviation	.00000	.92965	.00000	2.00847	1.74368

Impact of Digitization on Cybercrime Risk in Navi Mumbai and Panvel Zone

Prof. Pushpendu P. Rakshit* & Prof. Yogita Rawat**

Abstract

*Since years, scholars like Kimball (2007),Lynne Yarbro (2008), Grace V (2009), Johnny Nhan(2010),Gable, Kelly(2010), Kyung-Shick Choi (2010), Smith, Katherine T.; Smith, L. Murphy; Smith, Jacob L(2011),Cindy J. Smith;Sheldon X. Zhang (2011), Paternoster (2011),Bradford W. Reyns (2012), E. Gabriella (2012), Jean, , Brody, Richard G.; Mulig, Elizabeth; , Redins (2012), Ngo, Fawn T, McMahon, Richard; Bressler, Martin S.; Bressler (2016),Williams, **AditiPhadnis** /*Business Standard ***reportsNational Crime Records Bureau, Analysis: IndiaSpend (2016),*** *VivinaVishwanathan (2017), Teen Jose et al (2017) have addressed the concepts of cyber ethics, crimes and security aspects with the advancement in the trends of technology and move from traditional to online approach. Through the literature review from multiple dimensions, it gives a clear picture that computer / cyber security or related concerns are historic in nature. The doctoral study is conducted on the customers of Navi Mumbai and Panvel zone to find the level of awareness regarding cybercrime and security aspects as it is one of the developed cities in modern digital era.*

The number of individuals exploited by computer crimes has magnified annually (Gordon, Loef, Lucyshyn, & Richardson, 2004). Flanagan and McMenamin (1992) state computer Crime-committed by fresh generation of hackers might toll cybercrime victims,as a clustered, anywhere from $500million to $5 billion a year. The Computer Emergency Response Team Coordination Center(CERT/ CC) reports that "the number of reported incidences of security breaches in the firms three quarters of 2000 has risen by 54% over the total number of reported incidences in 1999" (McConnell International LLC, 2000, p.1). This Convey that the hacker universe is speedily ever-changing for the worse. Kabay'a (2001) concise of report and surveys of computer crime approximation that losses to victims of virus infections reached approximately $ 7.6 billion in the first half of 1999. The reports fromGotlieb, and Denny [1993] is an important study that reveals the impact of information technology on fruitfulness of banks per second. Computerization and digitization is crucial factor which improves the efficient productivity of the banking proceedings. Navi Mumbai is a developed business hub with many banking and financial institutions providing financial services to customer in both the cities. As per the statistics from RBI report (2014) about Credit card transaction taken place is 4,38,032 via (asynchronous transmission medium) ATM and 5,60,91,791 via point of sales (POS) and amount transacted in millions via ATM is 2505.79 and that via POS 171865.26. Same in case of Debit cards transactions via ATM is 59,10,56,613 and POS is 7,36,18,740 and amount transacted in millions via ATM is 1897693.28 and POS is 111006.57 as per year December 2014.

Credit card transaction taken place is 4,40,618 via (asynchronous transmission medium) ATM and 11,28,02,575 via point of sales (POS) and amount transacted in millions via ATM is 1539.2 and that via POS 327082.5 where as in case of Debit cards transactions via ATM is 71,23,47,249 and POS is 32,86,23,459 and amount transacted in millions via ATM is 1516436.7 and POS is 490041.9 as per year January 2017. Thus, is becomes too important to conduct a study for the same to understand customers perspective towards cyber security awareness post demonetization.

Respondents were selected on the basis of convenience and data was collected over a span of four months. There is a benefit of having small sample size Malhotra (1999) thus 221 questionnaires were filled for problem solving keeping responses confidential, as it not only provides better average mean values but also avoids errors which may exist in case of large sample. Anyhow for such an important aspect, surprisingly published literature is found limited.

The study uses quantitative techniques (i.e survey method) to explore the relationship between increasing rates of cybercrime due to digitization and demonetization (Times News network, 2017) and customer awareness in Navi Mumbai and Panvel zones. Respondents were selected from the cities mentioned and Correlation, cross tabulation and Chi squared test has been run to test the differential hypothesis of the study.

Keywords: *Cybercrime, Impact on Financial Institutes, Attack Trends, Information Technology Act 2000, Reserve Bank of India Guidelines 2016.*

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Introduction

Cybercrime is no longer just lone hackers trespassing (Furnel 2002) on private network for fun but in current world of digitization it is organized (Williams, 2001), successful, market impelled business framework, well configured, with a hierarchical and industrious administrative body of labour* and profit driven. In the current scenario, India (Rajnath Singh,2004) has observed a huge increment in Cyber crimes(Chopra V. K, 2006)whether they relate to Trojan attacks, salami attacks, e-mail bombing, DOS (denial of services) onslaught, DDOS (distributed denial of services), fake emails, fake websites, malware &ramsomware, web bug, man in middle attack, information stealing, or the most common offense of hacking, phishing the data or machines on network to devote crime (The Hindu, 2011).

The offenses which take place over the medium of Internet are called as cybercrimes. These include a superfluity of illegal activities. The term 'cybercrime and security' is anvast umbrella statement under which many cyber related felonious activities may be grouped together. Because of the faceless cosmos of Internet, there are many perturbing activities occurring in the cyberspace which may alter the perpetrators to indulge in diverse types of vicious activities which are titled as cyber crimes. Thus, cybercrime instruments any crooked act wherein the computer is either a instrument for Cybercrimes which regard computer as a puppet are usually alteration of conventional crimes such as drug-trafficking, on-line gambling, financial fraud or forgery, pornography,intellectual property crimes,cyber defamation, cyber-stalking, cyber bullying, virus attacks, password stealing, spoofing etc., or a target or both (Brynjolfsson Erik 1993).

This learning is doctrinal in nature. An endeavour has been made to analyserate and impact of cyber crimes occurring at diverse private banks in Navi Mumbai and Panvel Zone. The study will be completed using a survey instrument. The research involved two parts of the study. The first part of the study involves the development of the questionnaire for cyber crimes and practices for the banks in Navi Mumbai and Panvel zone along with customer perspective for the same and second part of the study is to show the further enhancements security solutions to banks and customers.

Shairing is said to be a good ethical practice at times but not when it comes to data or information and to be specific when it comes to financial transactions and relevant sectors in Navi Mumbai &Panvel Zone. Never share crucial information such as card details, CVV (customer verification value), password, PIN (personal identification number) and OTP (one time password) (VivinaVishwanathan 2017) with any one even very close to you at times.

In Navi Mumbai &Panvel zones which are the best developed cities and business hub adopting latest online trends in technology (PriyankaJoshi, 2011) for banking solutions. Thus from customers perspective it is also very important to have a know how of awareness that they have, thus the study is conducted. Looking in to these zone for their tremendous financial developments the faces the harpoon of Cybercrime correctly synonymed as White Collar Crime (Daly 1989, Benson & Moore 1992, Ben Itzhak 2009, Croal 1992) and thus needs to counter attack for the same.

Findings from the report of ASSOCHAM (Associated Chambers of Commerce and Industry of India) and Ernst and Young:

Mobile impostor activity are domain of great care for companies as **40-45 %** of financial proceedings are finished by means of mobile devices and this is foreseen tomature to **60-65 %.**

Break-up of Complaints on Online Security

46 % were affiliated to credit/debit card fraud;

39% Complaints such as morphed pictures, cyber bullying / stalking;

21% Cheating through mobile

18% hacking of e-mail ID

12% abusive/invading/salacious calls and SMS

Figure 1- Operational Procedure of Cyber Fraudsters
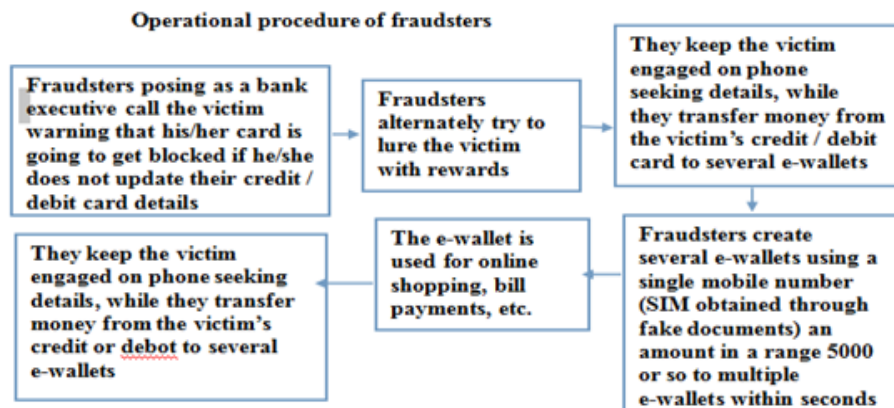
Objectives for the Study

The objectives of this research work are to skin senses all the essential feature of the cyber crimes in a comprehensive mode and to attain new visual sense into it.

1. To explore how cyber crimes are committed (e.g. credit cards, internet)?
2. To explore quantity of money is at stake, lost and recovered?
3. To analyze modes such crime be reduced – by prevention or punishment?
4. To explore cyber risks to banks and customers.
5. To examine that how cyber security awareness is important for customers while using online / methods of financial transactions?

Review of Literature

Information Technology (IT) is rattling and potent in today's cosmos, and financial institutions are the mainstay of the Indian economy. Indian Banking Industry currently is in the midst of an IT gyration.

The data available from the sources on implementation of digitization in Indian banks are categorized according to the concomitant content as mentioned below:

1. Digital developments and innovations in banking sector.
2. Application of IT in banking sector in Indian scenario.
3. IT related automated designing for Indian banking.
4. Technological developments in cooperative banks.
5. Challenges and opportunities- Indian banking industries.

As it's understood that very limited studies are conducted on the banks of Navi Mumbai, the need to do so arises in my research work.

Research Design

- Deductive Approach (Qualitative)
    - testing theory through observation and data (Primary & secondary).
- Exploratory Study
    - Purposive, (deliberate) self-selection sampling and area sampling.
- Longitudinal
    - projects must be around 1 year in length.
- Collection of data
    - In- depth personal interview at beginning with banks and cyber cell.
    - questionnaire method.
- Delphi method / expert advise for probable solutions
- Self-completion diaries
    - to track issues and dynamism in cyber space.
- Sample size - 221

Problem Formulation

There has been no comprehensive study in the areas of the impact of cyber security issues in the banks (Clarke &Knake, 2010) of Navi Mumbai and Panvel zone, at best there has been a reference made to attacks with mitigation and prevention, general customer satisfaction for services and intrusion detection.

There has been no complete list or in-depth description of cyber security measurements and customer's perspective followed by the banks. There have been studies that took at one aspect of banking cyber securities and fraud detection or prevention techniques but had a lacuna to further enhance the banking system security that holds huge customer information and large amount of finance. Also to mention that studies were still not conducted on the local branches of banks in selected localities for the research. Thus there is a gap which this research aims to fulfill.

Findings, Data Interpretation and Analysis

The proportion of male is 33% and female is 67% among respondents.

The sample respondent was skewed towards population aged between 19-24 years (90%). About 7.2% belonged to the age group of 25-34,0.5% for 35-44, 1.4% for 45-54, 0.5% for 55-64 and 0.5% for 65+.

The sample respondent had population of 93.2 % for bachelor's, 2.7 % masters,0.5% doctoral,1.4% high school, 1.4% associate and 0.5 % others.

About 53.4% were found using computer / internet for 3-5 hours a day where as 24.9% uses for 6-8 hours, 17.6% uses for 0-2 hours and 4.1% for 12+.

About 75.6% have moderate knowledge of internet technologies, 16.3% have high, 5.4% have low and 2.7% has expert.

About 44.3% are found very familiar where as 49.8% are some what familiar.

It was found that about 31% thought that the Bandhan Bank was most vulnerable to cyber frauds where as 19.5% said Axis Bank, 16.7% said ICICI Bank, 11.8% said City Bank, 10.4% said City Union Bank and only 10 % said HDFC for the perspective zones in the study.

Statistics says that about 28.5% customer were victims of credit / debit card frauds where as 24.9% for electronic / e wallet fraud, 21.9% for ATM fraud, 12.7% for phishing / vishing and that of about 12.2% for identity theft in the study.

The study reveals that Phishing with 42.5% stands for most known cyber attacking technique Credit / Debit card frauds where as 29.9% for password stealing, 24.9% vishing and 4.8% for loss of cards.

Study further states that around 24.4% sample space claims demonetization as a reason for increase in cyber crimes in Navi Mumbai and Panvel Zones in the current scenario.

The study reveals that around 72.9% of sample space states that banks does not provide alerts and conducts awareness programs for cyber security aspects in current scenario and only 27.1% says yes for the same. As it is understood that most of the crowd are not cyber illiterate and only alerts via simple messing system (SMS) may not be that much accurate and many even fail to have electronic mail accounts.

81% of sample size uses e wallet / online money transfer applications post demonetization where as only 19 % still moves with conventional methods.

91% says that they have never been participated in any of such awareness campaigns related to cyber security conducted by banks and its only 9% that have been there for same.

About 65.2 % customer receives mobile alerts from banks where as 19% via electronic mails, 12.2 % via advertisements and around 8% receives physical copy for the same.

In case of customer becoming a victim of cyber crime around 67.9% customers tends to block their cards, 11.8% sets up investigation, 8.6 % ask banks to hold for further transactions and very few land up lodging complaint against the same to cyber cell / police station.

It is also found that around 58.4% are still unaware about the legal rights and the cyber laws for protection against cyber crime, where as 41.6% says they posses understanding for the same.

53.8% of sample size are partially aware of the procedure to lodge a complaint to banks / cyber cell / police department / other authorities, where as 18.6 % are interested to know, 11.3% are some how fully aware and 16.3% still unaware for the same showing importance of cyber know how in current scenario.

56.1% of sample space said these kind of survey / seminars / work shops would create awareness among respondents regarding cyber frauds / security measures.

Managerial Implications

The study has helped us to understand that financial organizations need to be supportive and empathetic towards understanding the awareness and literacy developments of customers. In this world of digitalization it is very crucial to understand the customers perspective towards cyber securities.

Limitations and Future of the Research

The study has considered financial sectors in general in the zones of Navi Mumbai and Panvel, but it can be further segregated and studied. Also, a large sample size can be taken which can involve more population of cities.

Conclusion

It has been observed in the present study that about 81% people depend on online payment systems and 53.8% are found partially aware of IT norms where as 53.8% are unaware of legal actions and are also now aware of legal procedures as related to customer awareness perspective.

Preventive methods are also provided in the study along with different statistics of the study. Looking into the gap present in the measures of the banks and low literacy rate among the customers, at times it is difficult to prevent same. Cyber crime can be shielded by SMS / Mail Alert facility, Individual Consciousness Programs and awareness, Password Encryption, Virtual Keyboard, Secure Socket Layer (SSL), Brief message service alerts and mails. Thus banks must be proactive to safeguard its valuable customers for financial transactions to the zones considered in the study. Thus the study reveals many of the ways to detect and counter cybercrimes in city. This study is an eye opener to the customers as well as to the banks regarding cyber security threat growing at alarming rate due to the digitization in to this cities. Thus the out comes can help to understand how customers using technology or online banking system needs more protection alerts and how customers can also be more alert while using the same.

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Impact of Digitization on Indian Economy

Rajni Mathur*

Abstract

Digitizatoin is a key to economic growth in the realm of conducive policy. Being an emerging economy India has witnessed key changes in its policy decisions. The vision of Digital India that will integrate all activities social and economic is the biggest dream of the present government. In order to revitalize the transactions and process of transfer of money as well as commodities entire gamut of policy changes have been initiated.The intention of the government with such initiatives like Demonetization, GST, Make in India Campaign and many other government initiatives like e biz platform is not only to smoothen the economic activity but also to have a simultaneous impact on digitization . In this paper I have studied that whether all these initiatives can transform the Indian Economy and putit in the right trajectory. For understanding the impact the approach has been to identify these initiatives and understand that how theseinitiatives has changed the way the transactions are done for money, goods and services. Previous research also points towards a positive impact of digitization on economies. India is an emerging economy and has experienced significant growth in digitization in last two decades. With this paper I have tried to build a complete picture. The objective of the paper is to understand whether the current initiatives are sufficient enough to bring about the desired positive impact on GDP.

***Keywords:** GDP, Digitization, Internet Penetration, Online Transactions*

Introduction

The process of converting different form of available information such as sound, text, image or voice into digitalized form is known as digitization. Whereas digitalization is the process where organisations are approaching markets with the use of digital media thus creating brands , selling and building customer interface online. In an economy digitization is achieved by the following the process of creation, distribution and usage of digital information. The process of digitization of information happens to bring economies of scale, is economical and therefore valuable for the modern day societies.

The outcome of the developments in the technological aspects of Information and Communication Technology is responsible for the initiation of the concept of digitization. There has been an overall change from the print to digital form which has resulted in the dissemination of information to the larger section of the society and thus there has been an increase in the internet penetration and the result is that there is availability of massive information tovarious sections of the society. There is a massive growth in creation, processing, communication and preservation of knowledge in modern days economies. For any economy there are two basic points which are important the first one is what is the economics of the process of digitization and how much cost effective it is. The second point is what is overall impact of digitization on any economy. It has been observed by the previous researchers that the impact of digitization is higher on the developed economies in comparison the developing economies. There are more benefits in terms of growth and productivity. The differing impact of digitization is because of the different support structure of developed and developing economies (El-Darwiche& Singh, 2013). The process of digitization effects the productivity in a multifaceted manner as the time lag comes down, faster implementation, faster information and reduction in the cost. The impact not only differs from country to country but it differs from each sector to sector as well. It has been observed that developed countries draw benefits in the form of productivity where as developing economies growth in job creation (Booz & Company)

As per the digitization index developed by BOOZ & company in 2012 India falls under the category of emerging economy with digitization index around 22.The parameters to understand the extent of digitization in count should take into consideration not only technology penetration but multiple sets of parameters to have a holistic view of impact of digitization. In order to fully understand the impact a composite index was prepared with the components : network access, affordability, human capital, infrastructure investment, capacity and usage (Raul Katz, PantelisKoutroumpis and Fernando Martin Callorda). Also the study highlights that India has witnessed a consistent growth in in digitization since 2002, its improvement has been relatively slow and the countrycontinues to lag behind most emerging countries. The reason of slow progress is the limited policies for the telecommunications sector and there has been excessive fragmentation in the allocation of the wireless spectrum. Also the rural sector is deficient of infrastructure therefore internet and mobile penetration is lagging far behind.

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Objective of Study

    1   To understand what the impact of Digitization on Indian Economy.

    2   To highlight how recent Initiatives have proven beneficial for the growth of Indian Economy.

Research Methodology

The study is exploratory and quantitative in nature. The secondary information is used for the analysis of the problem. Sources for the secondary data are originated from the various sources like special investigation team report, newspaper and Reserve bank of India (RBI) websites

Effect on Online Transactions and Internet Penetration

The short term impact of demonetization was a slow down in the Indian Economy as the readiness was very low and there was a huge negativeimpact on rural areas which totally runs on cash transactions. There has been an ever increasing impact on online digital transaction after demonetization and this is the probe area where it is required to understand that is this massive growth sufficient to ensure an intensified impact on GDP. It has been noticed that there has been an overall enhancement in online monetary transactions to the extent of 80 % in the year 2017-18 post demonitzation. The total transaction turnover is expected to touch Rs 1,800 crores, the rise in this vale is manifolds in comparison to previous years but is it sufficient enough.

In the year 2017-18 value of digital tarnsactions rose to Rs 1,000 crore which was more than the value of entire 2016-2107 year. As can be observed from the table that the overall digital transactions have increased from 1076 to 1800 crores and this growth highlights that there is a quick adoption of online mode. But the monthly transactions show a trend which highlights that initially there was an increase in monthly transactions which increase to 156 crores in the month of march 2107 but again dipped to 136 crores to 138 crores.It inidicates there is a steady pattern of monthly transaction, this pattern does not support the expected high growth in online transactions and also highlights that there is still resistance. Also it has been observed that, the financial sector, as is the case with other countries has adopted the online mode fastest in comparison to other sectors. Nearly 78 % of the bank account have been seeded withmobiles. Average daily transactions using various online interface, such as IMPS, M-Wallet, debit cards etc. has gone up significantly, but still lags if it has to be compared to overall population of India. Also with these initiatives there was an upsurge in the e filing of tax which increased to 100% online filing 72 lakh registered entities. As far as the internet penetration is concerned it has been rising amongst the rural population and has increased from 101 million   subscribers inoctober 2014 to 163 million in December 2017. The growth in urban internet usage has started leveling down whereas it has been fueled by rural sector majorly. The estimates given by the Manoj Sinha, minister of communication, are that total subscription of will go up to 730 million by the year 2020.

Taking a holistic view apart from the increase in the online transaction a positive impetus has been thereon payment gateway companies and benefits have been transformed in the form of extra employment generation in this industry. Also telcom.service provider gains cannot be undermined here. But with all these positive changes another question arises that is this growth of transactions sufficient for Indian Economy to forge ahead. As the growth of online transactionswas not exponential. It is not sufficient to accelerate the economic growth engine.. Also to highlight that though India has low Internet penetration at 33.22% compared with other developed and developing economies that have up to 90% penetration, India has the third-largest Internet user base in the world, with more than 300 million users, of which more than 50% are mobile-only Internet users.

Source: IMRB I-Cube, All India Estimates. December estimates does not account the impact of demonetisation
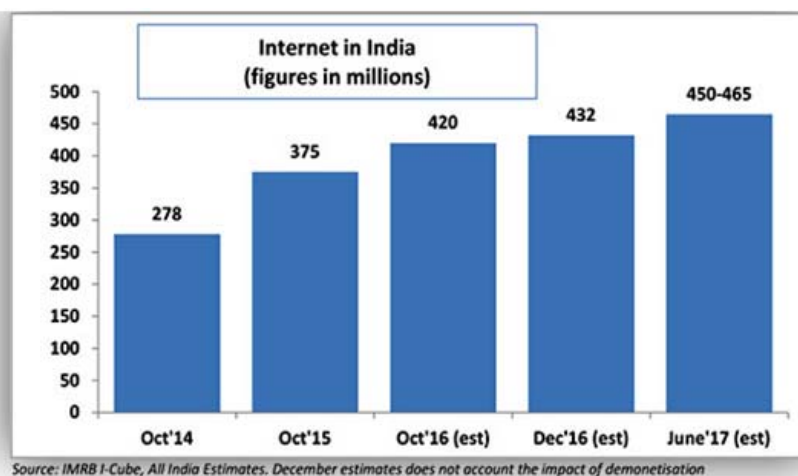
The growth in internet peentarion over the years has been to around 33.2 % of population which is still not significant enough to put India into higher trajectory growth path.
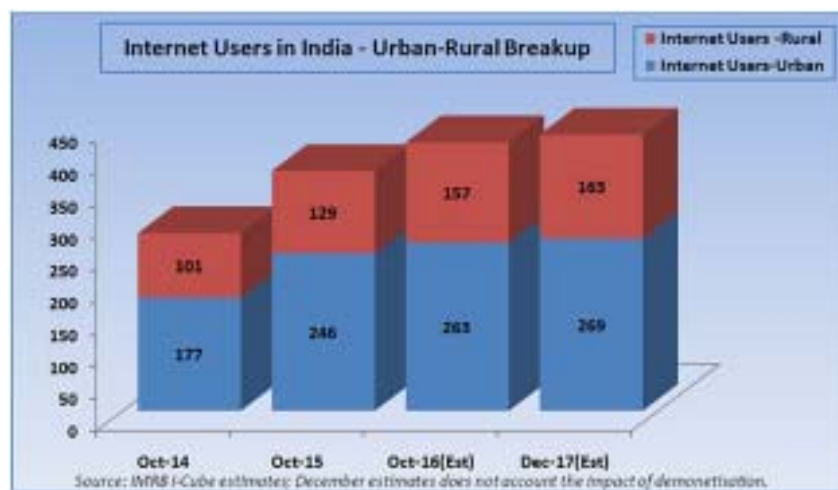
Growth of Internet Subscribers in India (Ministry of Telecommunication)

Indicator	June 2014	September 2017
Total Internet Subscribers	259.14 Million	429.23 Million (includes 129.41 Million in rural areas)
Total Internet Subscribers per 100 population	20.83	33.22
Total Wireless Subscribers	914.92 Million	1,183.04 Million
Wireless Rural Subscribers	377.36 Million	498.28 Million
Average Data Usage per subscriber per month	70.10 MB	1600 MB

Effect on Trade

As per Nidhi and Sudha Narayan demonetization had a huge impact on trade and nearly 15% of the trade was effected and most effected were the perishable as these rely more on day today transactions of cash. Taking view of other Industries a definite slow down in real estate was observed. Here one needs to highlight whether the slow down trend is consistent or the trade has grown after the initial hiccup that was observed. As per BOOZ and Company the impact of digitization by country and by sector is uneven. How much a country gains from digitization in terms of productivity and cost reduction is situational and an overall impact on GDP also differs owing to the complexities in terms of what is the form of the government, monetary system, financial markets and commodity markets. Looking into the current tends of last two years the GDP growth has declined from 7.11% to 6.72 % in India, clearly highlighting that though the online transactions are on rise but still not enough to accelerate the growth in GDP as the increase is online transactions is offset by other drawbacks and complexities in the economy . The short term impact of rise in online transactions and internet connectivity is not seen and it is too early to highlight the impact in long run. When we talk about developing countries, according to the World Bank report, as there is support of infrastructure and conducive policy decision a 10% increase in mobile penetration increases the per capita GDP by 0.81% and the same increase in broadband penetration increases the per capita GDP by 1.38%. Digital India project is expected to increase the broadband penetration across India by 50% (which is currently at 7%) and mobile penetration in rural India by 30% (which is currently 45%) in next 2 years, the corresponding increase in GDP will be higher if this project is successful.

Challenges and Complexities

1. There is always a resistance to change and also in India complexity arises due to diversity and urban and rural divide.

2. Theft of data is the biggest challenge as the resistance amongst society members is high. In this parlance building trust amongst the people for change is difficult as there is lot of skepticism.

3. A simultaneous effort to impart knowledge has to be there otherwise the usage of internet is always I question. Lack of knowledgeabout its use and benefits specially the rural areas where the form literacy rate is less.

4. Infrastructure requirements and their unavailability also hamper the reaching of these basic facilities to the people.

5 The impact of digitization on various sectors is varied and it has been observed that the financial sectors has been digitized to a greater extent in comparison to the other sectors the lagging sectors like agriculture production and distribution should grow in order to have a major impact on GDP.

6 The basic hindrance is the lack of literacy and literacy is not just to be able to write ones name and do the signature but to have an understanding of the changes going in the technology, society and the country for their own betterment.

Digitization Sectoral Impact

As has been highlighted the sectoral impact of digitization differs it becomes imperative to understand the impact of digitization on functioning of an organization. To develop an understanding the functions of an organization can be divided into four basic areas : go-to market, business, operations and production.

- Business:.Digitization is basically changing the working and business models of orignizationsBasically world has become one as there is IT infrastructure advancement. It has resulted in the low entry barriers and expansions of the markets is easier. For example, skype technology can connect nearly 480+ million users, which has an impact on the business model telephone operators as there services are substituted by internet protocol (VOIP) technology.So functioning and product of industries get effected due to emerging trends in the digital platforms.

- Go-to-market: Digitization has changed the outlook of the companies' altogether and there is a greater role of media that is observed. Companies are using social media to build brands and products, communicate, and provide services to their customers. More and more, subscribers are forming their purchase opinions online, even for items that they then buy offline. Digitization is an enabler and is providing the edge to the companies as they can customize the products to customers' tastes. For example, BMW offers a build-your-own-BMW online service, which allows for more than a million different combinations in the finished product.As online retail is becoming the part of the channels, there are changes in the buying pattern of the society as a whole.

- Production: Digitization is also changing the way companies manage their production assets. The companies can convert to lean manufacturing thus reducing waste. Also it has been observed that developing economies have gained it terms of production processes, as there productivity has gone up and and they have started outsourcing labor intensive process to the developing economies.

- Operations: digitization has had the highest impacton the operations and process of the organisations which also generates competitive advantage. Many companies have a new definition of working culture as digitization gives flexibility of operating from anywhere; it has redefined the office space concept for many companies. Digitization has created more global entities, seamlessly in touch across continents, and has redefined the concept of office space. Digitization is also allowing companies to outsource or completely automate a number of their back-end functions, enabling them to become more efficient.

Digitization has different impact on different sectors of an economy, the nature and extent of impact differs on the four different platforms.For example, if digitization significantly bolters the market access, there is job creation likely to be enhance in that sector. However, if there is enhance in productivity and efficiency and no change in market creation the sector is likely to lose jobPolicy makers should take into consideration the impact of digitization on various aspects of the organizations and then initiate the changes. Also it has been observed that there are leaders and laggard industries in terms of digitization. Banking and financial Industry followed by manufacturing, retail and hospitality (Booz Company) is the leading industry in terms of adoption of digitization and to a very great extent in India also banks are the ones who have implemented digitization faster in comparison to other industries. But if economic growth has to be observed other sectors should also evolve with respect to digitization, In India manufacturing and agriculture sector should pick up in terms of digitization in order to bring Indian economy to the threshold where the contribution of digitization to growth getintensified.Limitation of my study ws that only internet penetration And online transaction were taken into consideration. In order to highlight the true impact other parameters like infrastructure, policy change etc.

DIGITAL HIGH

TRANSFERS THROUGH DBT 2017-18 |
₹6.28 lakh cr
(186% jump since DeMon, 390 schemes)

PoS MACHINES |
From 15 lakh in Oct '16 to 29 lakh in Aug '17

78% of bank a/cs seeded with mobile

73% of bank a/cs seeded with Aadhaar

DIGITAL TRANSACTIONS
(₹ cr)

- 607 — 2015-16
- 1,076 — 2016-17
- 1,800 — 2017-18
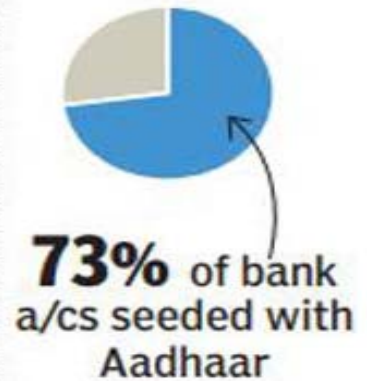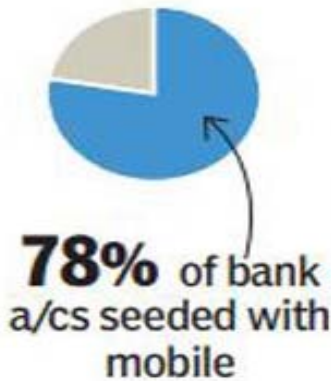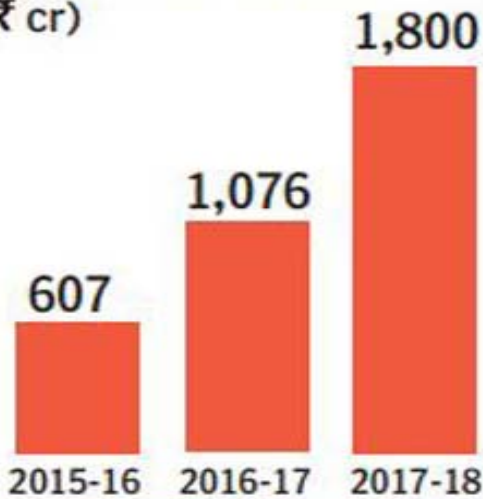
Average Daily Transactions (In lakh)

UPI/BHIM
Nov '16 | 0.1 lakh
Oct '17 | 23.36 lakh

AEPS
Nov '16 | 12.06
Oct '17 | 29.08

IMPS
Nov '16 | 8.96
Oct '17 | 32.42

M-wallet
Nov '16 | 46.03
Oct '17 | 72.72

Debit cards
Nov '16 | 46.86
Oct '17 |
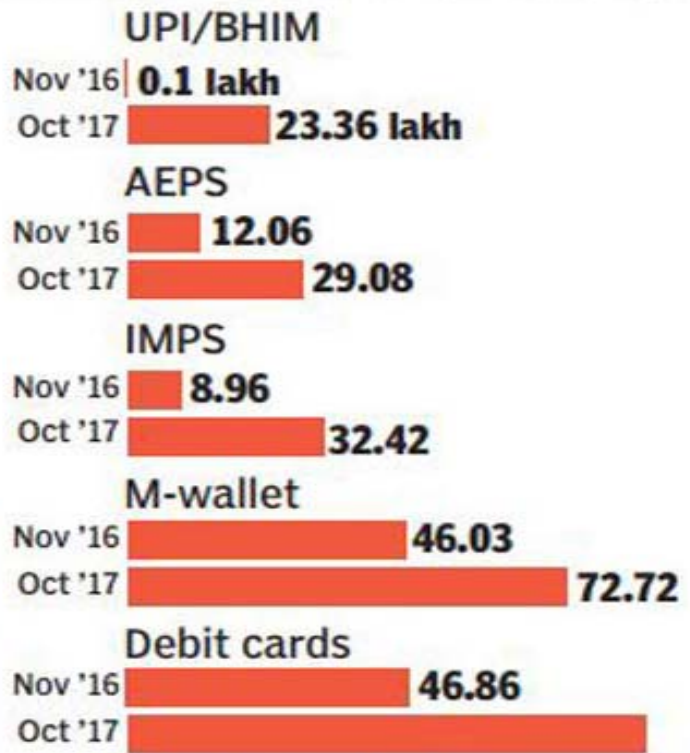
UPI: Unified Payments Interfac
IMPS: Immediate Payment Service
AEPS: Aadhaar Enabled Payment System

MONTHLY DIGITAL TRANSACTIONS (In Cr)

Month	Value
Oct'16	87
Nov'16	102
Dec'16	149
Jan'17	146
Feb'17	131
Mar'17	156
Apr'17	156
May'17	143
Jun'17	136
Jul'17	138
Aug'17	138
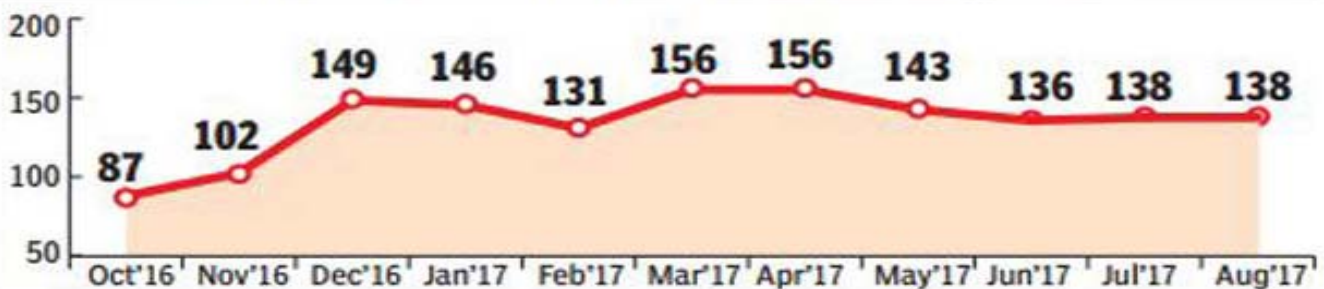
Conclusion

India has witnessed growth in digitization since 2002 onwards but it has been slow as there are complexities like lack of infrastructure, illiteracy etc. Recent Initiatives of the present Government have changed the pace as there is a marked increase in the online transactions and internet penetration. However to transform India to another level more impetus is required ensure that these policy changes are implemented. Looking into facts and figures currently there is a slowdown but in long term India will benefit from digitization which has been propelled by these initiatives. Also the penetration of Internet is still low about33.22 % in comparison to developed Economies which is required to be upgraded to the level of 90 %. The growth in digitization in India is currently not sufficient enough to push the GDP as it is offset by the resistance and limitations in the society.

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A Study of Digital Transformation In Hotels In Navi Mumbai

Chef. Priya Padave,* Rohan S. Shivekar,** & Wilson Lukose***

Abstract

Hospitality Industry is growing at a faster pace. Hospitality Industry along with the Tourism Industry continues to be a high growth industry. Technology in all forms plays an important role in taking the Hospitality Industry towards a connected future. Digital revolution has come in. Guests want digitally powered experiences.Digitization has changed the nature of competition in the travel and hospitality industry. Digitization is increasing the level of competition, putting pressure on revenues and profits. To take advantage of growing market of digitization, Hospitality Industry needs to understand the direction of change and the most promising strategies for success. The Industry in order to stay in the competition needs to identify ways to satisfy the customer. Achieving excellence in providing a superior customer service experience is what will differentiate the industry. It being the tough competition, everybody wants to be ahead in the race for customer satisfaction. The only way is through digitization.

Technology is changing the way people eat out and dine. Prompt and efficient systems that work are in place 'delighting the customer' all the way. The paper menu cards are replaced by smartphones and tablets, enabling customers to browse through the menu, check the cuisine in detail, avail any discounts/coupons available and pay your order with flexible payment options. This all can be done from your tablet at your restaurant table. Your suggestions, feedback are all welcome through the tablet.

In short, hospitality and travel, must adapt to digitization in every corner of their organization. Digital technology is opening new business ideas and new ways of working. Not only the new upcoming hotels but also the existing Hotel chains urgently need to examine their businesses end to end and reinvent themselves in order to compete successfully in the future.

This paper attempts to study how digitizationhas brought changes in the travel and hospitality industry. The paper features exclusive insights from industry leaders and steps taken by the Hospitality and Travel industry to be part of the digital revolution.

***Keywords:** Digital, Industry, Technology, Digitization, Competition, Guests, Future.*

Introduction

Our life is revolving around technology as we become more and more digital. Hospitality Industry is also getting transformed with these digital technologies. It is the digital era.

Dining out, what we eat, where we eat is all influence of technology. Mobiles were first as a means of communication. But today mobiles in the form of smartphones and tablets are used much more than communication making our lives easier and comfortable. This has revolutionized the Hospitality Industry. Smartphones are used to place our menu orders. Tablets are replacing the paper menu cards, enabling customers to browse through the menu, check the cuisine in detail, avail any discounts/coupons available and pay your order with flexible payment options (Hitesh V, 2017). This all can be done from your tablet at your restaurant table. Also, if you had a very sumptuous meal at the restaurant, you could immediately write a few lines of good from the same tablet. Digital Menus, Digital Drive thru Menu boards, Applebee's Tablet on tables, Geoffrey's Electronic Paper Menu, Concept Kitchen Table for IKEA, Pizza Hut Concept Table these are few examples present in today's digital world. Zomato, Food Panda andSwiggy are few digitization examples which have made table reservations, online payments, restaurant reviews accessible to the customers (Hitesh. V, 2017)[1]

Prompt and efficient systems are in place offering streamlined, hassle free and comfortable services to the guests, staff and owners (Hitesh V, 2017).[2]

Social media is a revolution in itself. It has given Hospitality Industry a chance to promote its brand or image, an opportunity to connect to new customers highlighting its features. It goes without saying that Hotel Industry needs to have its own twitter handle or Face book page.

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Various areas such as the coverage of safety on digital payment platforms, cloud services for documentation for enhancing speed and convenience of transaction, emerging role of augmented and virtual reality in tourism marketing including virtual tour guides(https://mediaindia.eu/digital/digitalisation-of-indias-travel-and-hospitality-sector/), ease of data capturing and integration for enabling seamless transaction, and need for offering personalised services using Internet of Things and big data, among others.Hospitality Industry is now adapting to the ever evolving digital trends thus creating digital solutions to improve their sales and brand image. The growing availability and popularity of web based opinion platforms have made online product and services review much easier and hence helped the industry to view the opinions and similarly take decisions to improve the service and product.

Digitization has allowed the managers to expand their organizations into new markets , more customer interaction and lower costs.

E- Tourism is one such example that has stimulated the global and local competitiveness of tourism and hospitality industry. It represents the digitization of all the processes in tourism and hospitality industry. This has made the organizations more efficient and effective. E Tourism includes all e-business functions : e-commerce, e – management, e – marketing, e – finance, e – accounting, e- HRM, e – procurement, e- strategy, e- planning.

Digitisation In Hotels Over the World

Hotels such as the Hilton have begun offering a digital room selection choice and a digital check-in service for their guests, according to Travel Trends Today. This service is live across 4,300 hotels in general and includes 14 hotels that operating by Hilton Worldwide in India. With this service, guests will be able to check-in and choose their exact room from digital floor plans on their desktop, tablet and mobile devices

 Places in the hospitality industry can also instigate conversations and discussions, which Likeable Social Media calls 'table talk' and it can help, build trust with your customers.

Marriot Hotels launched VR Postcards, a series of immersive travel stories that guests view in 3-D on Samsung Gear VR headsets

UK travel agency Thomas Cook created a video that lets UK and German customers experience New York City through VR

Hilton Worldwide Huanying program features a concierge app that allows Chinese-speaking guests to order room service in their own language – and then translates the order into English for the hotel staff.

In Munich's Stachus Square, Hotel Buddy, Guests at the 75-room property use mobile devices to book rooms, check in and pay for their stays. Hotel Buddy has no staff, and its cloud-based environment requires no hardware.

(https://searchenginereports.net/www.cognizant.com/whitepapers/hospitality-in-the-digital-era-). Kiosks and bots replace some hotel services, and others, such as housekeeping and pool service, are managed by crowdsourcing and on-demand services from contracted vendors.

IHG Hotels uses Beacon technology in the lobbies to send individualized, real-time offers to arriving guests' smartphones.

The Fontainebleau Miami combines data from beacons and property management systems (PMS) to generate early check-in and late-stay offers.

The Hub Hotel from Premier Inn, the UK's largest lodging chain, has outfitted each guest room with an interactive wall map of the surrounding neighborhood. Travelers point their smartphones at the map to view local points of interest.

In London Hotels such as Edwardian Hotels has put AI to use as a virtual assistant. ASmartphone-based AI service lets guests order room service and request local recommendations via text.

Scandic, the Nordic region's largest hotel chain, has adopted sustainability measures by offering its guests bicycles and Segways for sightseeing.

Plaza Hotel (New York) gets an iPad when they check-in. This device lets them control their room's properties and enables fast and easy communication with the staff of the hotel.

Soi Wave House Hotel; known as Twitter hotel in Spain has room décor on twitter theme, and guests are encouraged to hash tagduring their stay. Guests could also connect to hotel staff and other hotel guests via a Twitter-designed online community(http://www.futureofwork.com/article/details/digital-technologies-transforming-the-hospitality-industry).Similarly, Marriott Hotels introduced PlusPoints, allowing guests to earn points for their social media activity. (https://sourceable.net/hotel-design-trends-for-millennial-guests/).

Four Season's website provides facility to their partners as well as customers to book the hotel rooms, horse riding or facilities like Zen spa. Online presence of Four Seasons Hotel is one of the examples of modern era technology being utilized in hospitality industry.

Roboceptionist are used to help guests find their way around campus. (http://www.otrams.com/blog/innovations/artificial-intelligence-in-hospitality-industry/).

Henn-na Hotel in Japan has Multilingual Robots who check in guests, carry luggage and perform many other functions.

Digital Technologies In Hotels

GOOGLE MAPS: Google Maps guides us on travels to new areas, as we can see places highlighted on an app.

SOCIAL MEDIA:Social Media profile such as Face book helps to boost your products and twitter handle helps to express frustration through tweets and posts. Feedbacks received online helps hotels to respond to that person within an hour to make them feel heard. Likeable Social Media called 'table talk' helps the hotel to build trust with the customers.

SMARTPHONES:Customized stay at hotels, choice to pick a room from a digital floor plan with special requests for items to be delivered to their rooms ahead of their arrival, all can be done with aSmartphone. Mobile or tablet applications help to control built-in sensors for lights and air conditioning.

The purpose of this facility is to win the customers loyalty thus giving them the freedom of choice to enjoy their stay better.

APPLE WATCH: Keyless room entry eases a person when he is out of the hotel.

AUGMENTED TOURISTIC REALITY:Augmented reality is an amazing technology that is used in Hospitality Industry. Travellers visiting a specific area could use an app to get specific information about the site being seen, making the experience more alive. By using the camera of a user's smartphone, apps can add up information to the screen about the exact location, historical facts, nearby restaurants, and you can actually go as far as your imagination goes. An amazing personal touristic guide. The hoteliers are also embedding the Augmented Reality content on their restaurant menu, allowing the non-native customers to read it in their own language. The guetss are also in a position to read customer reviews and watch how the chef prepares the dish that they intend to order.

DIGITAL HOUSEKEEPING:Managing operations, coordinating activities of the involved departments, room status, inventory, notifications, reminders to employees of pending tasks or last minute changes, include checklists in the app, etc. and give access to this information to all the staff and make their work much more productive.

POCKET CONCIERGE:In today's era of digitalization the concierge accompanies guests wherever they are or whenever they need him. Like a Wikipedia, they have detailed information of in and around the hotels. Guest still get the option to visit the concierge desk but also the option of using an app to communicate and access all the services from anywhere they are.

PERSONALIZATION: Hotels have started offering room upgrade, spa treatments and other offers personalized to the traveler based on their Code Halos. Hotels provide price accuracy based on predictive analytics (Sharma, Meenu 2015). Algorithmic patterns help hotels get more bookings on their own platforms.

BIOMETRICS helps us in improving surveillance, monitoring shifts and detection of frauds.

Digitally Future Hospitality Industry

ROBOTS:Serving foods, carrying luggage, as receptionist are some of the duties carried out by Robots.

ROBOTIC PROCESS AUTOMATION (RPA) Automated Process related to hotel bookings, housekeeping, supply chain management, Accounts payable to accounts receivable.

CHATBOT SERVICES; integrates with booking and purchasing. Intelligent conversation via text or voice, enabling humans to interact with systems in their native language replacing telephonic and email communications. Customers will feel more comfortable interacting with the 24/7 on-duty chatbots as they will get accurate answers to all their questions at any point of time.(Singhal Harshit, 2017)

VIRTUAL REALITY TOURS: The age old brochure has given way to Virtual Reality Tours. Guests are provided with a Virtual Reality experience to give them a detailed tour of the hotel.

INTERNET OF THINGS (IoT): Hotels can extract data from IoT devices creating valuable customer experiences,changing the operational structure by using virtual and real data, using algorithms to encapsulate the analysis of data to deliver highly advanced services to the customers.

The Main Advantages of Digital Transformation

The hospitality industry is embracing new technologies to provide value add experiences to keep pace with growing expectations. The more we advance in technology, the more industry moves towards digitization.

Reduce the waiting time: by offering self service options as check-in's or even guidance in airports, you reduce queues.

The customers can be regularly updated with latest news and they can be given access to content that can automatically be updated.

Take green initiatives (https://searchenginereports.net/apiumhub.com/tech-blog-barcelona/digital-transformation-hospitality): by using IOT in hospitality, you are going green. In fact, you print less key cards, less boarding passes and less papers, making it all digital. Also you end up consuming less, for example by heating the room only 30 min before the guests come back instead of keeping it warm all day, etc.(https://apiumtech.com/blog/digital-transformation-in-hospitality/).

Know your customer: with the help of data analytics you can understand better you customer, you get more information regarding preferences and tastes.

Personalise it: based on your guests profile you are able to provide high level of assistance and therefore increase the satisfaction.

Decrease some costs: by going green you end up reducing costs, but also all the digital transformation in hospitality improves communication and therefore reduces those costs.

Help your performance: your employees will be able to offer better services because they have access to more information about customers, and also because you get better coordination & communication between departments.

Objectives of The Study

This paper attempts to study the effects of digitization in the travel and hospitality industry. The paper features exclusive insights from industry leaders and steps taken by the Hospitality and Travel industry to be part of the digital revolution.

The Objectives of the study are:

1. To Study the effects of digitization in travel and hospitality industry.
2. To study how digitization has improved guest services of the hotels thus contributing to the growth and development of Hospitality Industry.
3. To identify the steps taken for digitization by the hotels.
4. To suggest measures and improvements in the digitization of Hotels.
5. To evaluate the current technologies used in Hotels in Navi Mumbai.

Research Methodology

Questionnaire design

This research was planned to assess the current and future technology use in the Hospitality Industry. The researcher had selected Hotel s in Navi Mumbai for conducting the study. The questionnaire was designed to collect information from employees regarding the use of technology in the hotel (Please refer Appendix 1 for the questionnaire). The questionnaire was distributed among employees of Hotels through online survey method. By selecting employees of Hotels in Navi Mumbai as the target segment for the survey, the researcher was able to ensure that the collected data was relevant to the research question.

Primary Data

Data collection method

The researcher decided to use primary research for the study. The research was conducted through online and telephone survey of employees Hotels in Navi Mumbai. The sample size was decided as 30, considering the difficulty in contacting the respondents. Employees working in different departments - front office, IT, housekeeping, kitchen, room service, restaurant, etc. - were approached for the survey, in order to get a holistic understanding of the situation. As seen above, the survey questionnaire was structured and closed, involving pie chart to capture employee's opinions.

Secondary Data

Secondary data collection method was used while evaluating technological changes for specific industry. Various secondary data collection sources like journals, internet and books used while carrying out the data collection. Predominantly the data was collected from previous work of researchers. This was to ensure that qualitative data is obtained for the study. Magazines and Periodicals were also referred.

Review of Literature

Nyheim and Connolly (2013) implementation of technology in hospitality industry provides equal benefits to both customers and the organization. with the assistance of technology, customers finds it easy to select and communicate with the best firms in hospitality industry where they can be resided for experiencing best services at affordable budget. Customers consider technologies as highly significant in hospitality industry, as it enables to make reservations of rooms, compare prices, to review guest experiences, accommodation facilities, infrastructure etc.

Sloan, Legrand and Chen (2013) mention the prevalence of technology in hospitality as impeccable to define since it facilitates firms to make frequent communication with its employees. Use of technology in hospitality industry has highly helped firms to stay connected with each of its dispersed divisions and branches and thereby to gain access over information about staff's and guest easily. It is clear from the viewpoint of Sloan, Legrand and Chen (2013) that the

implementation of technology in hospitality industry has highly benefited firms to lower its cost of operations.

Enz (2009) argues that the implementation of technology incurs high cost to organization, but at the same time, it offers multiple benefits to the firm.

Thayalan, Suthahini (2017) Technology is advancing at a faster pace than ever with the examples like cloud computing, wireless communication and digitization. Some of the trends in the technology are leading to great improvements and considerable savings for the hospitality industries. She opines that growth in technology in hospitality industry will definitely help in enhancing a customer friendly experience and customer satisfaction.

Law, Rob, Leung, Rosanna and Buhalis:The hospitality industries have widely adopted information technology (IT) to reduce costs and most importantly to improve service quality and does a quality check to understand customer experience in a positive way.

Zhanga, Ziqiong, Yea, Qiang, Law, Rob and Lia, YijunLia (2010) with the growing availability and popularity of web-based opinion platforms, online product reviews are now an emerging market phenomenon that is playing an increasingly important role in consumer purchase decisions. Consumer-generated ratings about the quality of food, environment and service of restaurants, and the volume of online consumer reviews are positively associated with the online popularity of restaurants; whereas editor reviews have a negative relationship with consumers' intention to visit a restaurant's webpage.

V, Hitesh (2017) According to Hitesh there has been significant digital transformation inThe Food and Restaurant industry. Digital menus, kiosks, tablets on tables, digital tabletops and digital kitchens. The Industry has achieved success in customization, food delivery, and payment options. Today, in India, Zomato, Swiggy, and Food Pandahave made services like online table reservations, social media reviews and mobile payment things of the past.

David (2015) the hospitality industry is becoming transformed by these digital technologies. Whether be fortnight-long leisure jaunts, or even just a one-night business stay over, digital technologies can help us find the best place for us to lay our heads. And, of course hotels and other places are interested in using technologies to make sure that they are certain a customer's trip will be at its very best. The great thing about social media is that it gives places in the hospitality industry the chance to have their say too. If a hotel or bar is tagged in a post, similar to the one above, they will receive a note of it, which is an opportunity to send and receive information on the best features of that place. It seems to go without saying that any aspect of the hospitality industry needs its own Facebook profile and Twitter handle. Overall digital technologies are improving the hospitality industry by increasing their channels of engagement and thereby opening up new methods of communication with their customers.

Karam, Lea (2016) He questions as to why Hospitality Industry needs digital transformation?The reason according to him is the huge and positive impact on traditional businesses and thus helps in enhancing the experience of customers. He puts his view that integration of mobile solutions helps businesses become customer-focused through innovative solutions as bookings & reservations, payments, staff service enhancement, loyalty programs, etc Digital transformation has reached mainly all the industries, and hospitality is one of them.

Sharma, Meenu (2015) According to Meenu Sharma many companies in the hospitality industry are embracing new technologies to provide value add experiences to keep pace with growing expectations. With the advent of more sensors, robotics and mobile technology in our physical and virtual world, brands have the opportunity to differentiate themselves based on how effectively they embrace new technologies and provide unique, authentic experiences to their guests.

Data Analysis and Findings

Questionnaire

1. Do You Know About The Current Digital Trends In Hospitality Industry?

2. Do You Feel Digitization In Hospitality Industry Is Necessary?

DIGITIZATION IN HOSPITALITY INDUSTRY

YES 100%
NO 0%

30 Professionals were approached out of which 15 gave their opinion. **All the 15 have replied with "YES"**

3. Does Your Hotel Use Social Networking Sites As Strategy For Business Practices?

USE OF SOCIAL NETWORKING SITES

YES 80%
NO 20%

30 Professionals were approached out of which 15 gave their opinion.

12 have replied with "YES"

03 have replied with "NO"

4. Has Digitization Improved Guest Experience In Your Hotel?

IMPACT OF DIGITIZATION ON GUEST EXPERIENCE

YES 60%
NO 40%

30 Professionals were approached out of which 15 gave their opinion.

09 have replied with "YES"

06 have replied with "NO"

5. In Which Departments of Your Hotel Has Digitization Been Used The Most?

IMPACT OF DIGITIZATION ON CORE DEPARTMENTS IN HOTEL

FRONT OFFICE 47%
FOOD & BEVERAGE SERVICE 40%
FOOD PRODUCTION 6.5%
HOUSEKEEPING 6.5%

30 Professionals were approached out of which 15 gave their opinion.
**07- FRONT OFFICE
06-FOOD & BEVERAGE SERVICE
01- FOOD PRODUCTION
01-HOUSE KEEPING**

Conclusion

Digitization is improving the Hospitality Industry by increasing their channels of communication.

Hospitality Industry through Social Media such as Facebook enjoys the benefits of cheap/free advertising. With new feature of Facebook 'Place Tips', the industry takes into account where a person currently is (i.e. staying in a hotel) and then generates a list of places that they might like to go to that are nearby. This up-and-coming feature on the Facebook platform is a true product of digital industry. The ever increasing dependence on mobile and digital technology continues to have a positive effect on the Hospitality Industry.

Digital transformation is when you listen to your guests, understand their needs and constantly strive to deliver unique experiences.

When the questionnaire was shared to the hospitality professionals, they came back to us with their personal as well as general opinion based on which we have made pie charts to understand the role and requirement of digitization in today's era. Though digitization has become one of the vital and essential elements of hospitality industry, some of us still lack the advanced knowledge required to efficiently and effectively carry out various tasks based on digitization. Hence, we need special training and development programs to develop the required skill sets.

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A Study of Digital Transformation In Hotels In Navi Mumbai

Questionnaire

1. Do you know about the Current Digital trends in hospitality industry?

    a) YES

    b) NO

2. Do you feel digitization in hospitality industry is necessary?

    a) YES

    b) NO

3. Does your hotel use Social Networking sites as strategy for business practices?

    a) YES

    b) NO

4. Has digitization improved guest experience in your hotel?

    a) YES

    b) NO

5. In which departments of your hotel has digitization been used the most?
   a) FRONT OFFICE
   b) FOOD & BEVERAGE SERVICE
   c) FOOD PRODUCTION
   d) HOUSE KEEPING

(Footnotes)
   1. Excerpts taken from Hitesh V 5 Digitization Examples in Hospitality Industry
   2. Excerpts taken from Hitesh V, 5 Digitization Examples in Hospitality Industry

A Study of Emotional Intelligence of Managers with Special Reference to Indian Pharmaceutical Industry

Jharna Pandya* & Dr. Anjali Kalse**

Abstract

The challenge for the corporate today is not only to attract and retain the right employees, but also to innovatively train them for acquiring the skill required to survive in the highly competitive global market. And emotional intelligence is one major dimension, which affects the performance in many ways. Thus it is responsibility of management to train their employees in this aspect to get maximum out of them. Emotions are the source of innate wisdom and they provide potential information to us every day. People who have the ability to sense and understand own emotions and of others are using emotional intelligence. Emotional Intelligence is defined as an ability to identify, understand, experience and express human emotions in a healthy and productive way.

Therefore, the study aims to explore the relationship between emotional intelligence and demographic variables viz., age, gender, experience in current organization, total experience, position held and department functions, on a sample of 116 managers in the Indian Pharmaceutical Industry. An Emotional Intelligence questionnaire based on Richard Boyatiz, Daniel Goleman, modified in Indian Context is used in this study. The scores of items are in the scale ranges from 1 to 5. Findings show that Emotional Intelligence increases with increase in current and total experience and the overall EI of the managers in the Indian Pharmaceutical industry is found to be Moderate. Thus, it is recommended that companies should conduct more training programmes on EI and create more awareness among employees to deal with people.

Keywords: Emotional Intelligence, Demographics and EI, Pharmaceutical Managers.

Introduction

In today's VUCA (Volatile, Uncertainty, Complexity, Ambiguity) business environment, organisation is searching for suitable ways of securing their competitive advantage by managing people issues. As the environment is changing at greater pace, there is lots of competitiveness among the organisation and people to achieve their set targets. This leads to lots of pressure amongst people and thus stress is created. There are different roles people play in an organisation, the stress they face while performing their roles and the implications it has towards their attitudes and well being are important considerations in managing job performance.

The issues which are gaining importance nowadays are: whether the employees are under organisational/occupational role stress, whether the quality of work life is as per their requirements, whether they are satisfied with their jobs and whether managerially they are successful or not. To manage this stress and its effect on the performance of the employee; Emotional Intelligence is studied emphasising on the importance of Self Awareness and understanding, redressing a perceived imbalance between intellect and emotions. Today, Emotional Intelligence and its capabilities has been the focus of management and psychological discussion. It is also one of the individual characteristics emphasized in the Indian Pharmaceutical Industry.

Operational Definitions

Emotional Intelligence is the capacity of recognizing our own feelings and those of others for motivating ourselves and for managing emotions effectively in ourselves and others.

Literature Review

Goleman (1996) have also stated that emotional intelligence increases with age and it can be learned, cultivated and increased in adulthood. In a series of longitudinal studies, it was shown that people can change their EI competencies over two to five years (Boyatzis, 2000).

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Mayer et.al. (2000) showed a series of studies that emotional intelligence increases with age and experience which qualifies that EI is ability and not a personality trait.

Srivastava and Bharamanaikar (2004) concluded from the study among the sample of 291 Indian army officers, regarding the relationship between the Emotional Intelligence and their age that Emotional Intelligence can increase with Age.

Thingujam and Ram (2000) in their attempt of Indian adaptation of Emotional Intelligence Scale (Schutte et al, 1998) had developed Indian norms (N=811) for males and females separately and found that women were significantly scoring higher than men.

Van Rooy, Alonso and Viswesvaran (2005) have made a study in which a common measure of emotional intelligence was administered to 275 participants The different groups score on a test of EI differences were compared for age. Results indicated that emotional intelligence scores tended to increase with age.

Gowdhaman and Murugan (2009) among B.Ed. teacher trainees (N= 300) have revealed a significant effect of age on emotional intelligence.

Contradictory to this finding, Jacques (2009) had reported that age did not predict emotional intelligence among a sample of 221 college students.

Mishra and Ranjan (2008) have also studied whether the gender difference affects emotional intelligence of adolescents (N=80, 40 males, 40 females). The results showed that adolescent boys and girls differ significantly on emotional intelligence and boys were found to be significantly higher on emotional intelligence than the girls.

Saranya and Velayudhan (2008) among 30 males and 30 females, university students regarding gender differences in emotional intelligence revealed that there exists no significant difference in self awareness, self regulation, social awareness and social skills among day scholars - boys and girls. There exists a significant difference in the dimension of motivation. Girls are better motivated than boys, this is because girls have a better driving and pulling forces which result in persistent behaviour directed towards certain goals.

Jadhav and Havalappanavar (2009) investigated the level of emotional intelligence among male and female police constable trainees (N=200). Results revealed that women police constable (WPC) trainees have scored significantly high on emotional intelligence than their counterparts. It may be because men spend most of their time with peers and home, whereas, women spend most of their time from the childhood in the home, with family members and even in their later life at house. Hence, they learn how to behave with others and how to control their emotions. Women are keener in every aspect and they utilize opportunities properly etc. Furthermore, the results also revealed that the women police constable trainees (WPC) scored higher on self motivation, emotional stability, commitment, altruism empathy and self awareness factors of emotional intelligence in comparison of male candidates

Shipley et al. (2010) reported that work experience was positively associated with level of emotional intelligence while age had no significant relation with emotional intelligence.

Objectives

- To establish the demographic profile of Managers in the Indian Pharma Industry.
- To establish the Emotional Intelligence profile of Managers in the Indian Pharma Industry.
- To ascertain the relationship between demographic factors and emotional intelligence.

Hypothesis: Demographic Factors Influence Emotional Intelligence

- Gender influences emotional intelligence.
- Age influences emotional intelligence.
- Work Experience influences emotional intelligence.
- Current Experience in organization influences emotional intelligence
- Position influences emotional intelligence
- Department influences emotional intelligence.

Research Methodology

Source of Data

Primary Data: A questionnaire was developed to understand which components of Emotional Intelligence effects the demographic factors like Age, Gender, Current Experience and Total Experience.

Measurement of Concepts

Emotional Intelligence is the capacity of recognizing our own feelings and those of others for motivating ourselves and for managing emotions effectively in ourselves and others. An emotional competency is a learned capacity based on emotional intelligence that contributes to effective performance at work "

Data were collected in 2 areas

1. Basic Information of Executives like Qualification, Age, Current Experience, Total Experience, Gender, Position, Department

2. It was measured with the help of Emotional Intelligence Scale by Richard Boyatiz and Daniel Goleman modified by Dr. Payal Maheshwari and Nayak, 2005 in the Indian Context. The scale ranges between 1 to 5 wherein 1 indicates "To a very small extent", 2 indicates "To a small extent" 3 indicates "To a moderate Extent", 4 indicates "To a large extent" whereas 5 indicates "To very large extent." The questionnaire contains 75 questions which cover topics like:

   Personal Competence

   a) **Self Awareness: concerns knowing one's internal state, preference, resources and inhibitions. The Self Awareness Cluster contains 3 competencies.**

   i) Emotional Awareness: Recognising one's emotions and their effects.

   ii) Accurate Self-Assessment: Knowing one's inner resources, abilities and limits

   iii) Self Confidence: A strong sense of one's self-worth and capabilities

   b) **Self Management refers to managing one's internal states, impulses and   resources. The Self Management Cluster contains 7 competencies.**

   i) Emotional Self-control: Keeping disruptive emotions and impulse in check

   ii) Trustworthiness: Maintaining integrity, acting congruently with one's values

   iii) Conscientiousness: Attention to details

   iv) Adaptability: Flexibility in handling change

   v) Optimism: Persistence in pursuing goals despite obstacles and setbacks

   vi) Achievement Orientation: Striving to improve or meeting a standard of excellence.

   vii) Initiatives: Readiness to act on opportunities.

   Social Competence:

   c) **Social Management: refers to how people handle relationship and awareness of others feelings, need and concern. The social management cluster contains 3 competencies**

   i) Empathy: Sensing other's feelings and perspectives and taking an active interest in their concerns.

   ii) Organisational Awareness: Reading a group's emotional currents and power relationships.

   iii) Service Orientation: Anticipating, recognizing, and meeting customers' or clients' needs.

   d) **Relationship Management concerns the skill or adeptness at inducing desirable response in others. The relationship management cluster contains 8 competencies:**

   i) Developing Others: Sensing others' development needs and bolstering their abilities

   ii) Inspirational Leadership: Inspiring and guiding individuals and groups.

   iii) Influence : Having Impact on others

   iv) Communication: Oral Communication

   v) Change Catalyst : Initiating or managing change

   vi) Conflict Management : Negotiating and resolving conflict

   vii) Building Bonds : Networking

   viii) Team work and Collaboration: Working with others towards a shared goal. Creating group synergy in pursuing collective goals

Sample: The unit of analysis for studying the relationship between Emotional Intelligence and Demographic profile is Managers of the Indian Pharma Industry. Data was collected for 116 managers using a Survey method. Data Collection method include questionnaire prepared in Google form and were asked to fill it online and also hardcopy was distributed for the same to various managers of pharma industry.

Data were analysed and interpreted using the Statistical Package for Social Science (SPSS Version-20).

Cronbach's alpha reliability coefficient for each Emotional Intelligence Competency sub-scale was calculated.

According to Pallant (2004), reliability scores greater than 0.70 are acceptable. As all of the items had an alpha above the standard guideline of 0.70, the scales are suitable for analysis with acceptable reliability. A pilot study was carried out to do test-re-test reliability on the same measuring instruments. Piloting refers to the preliminary testing of various aspect of a research study such as the questionnaire, sample design, research method, and research hypotheses that have been proposed (Blumberg, Cooper and Schindler, 2011). Cronbach's alpha, Spearman-Brown's Split-half reliability Coefficient and Guttman's Split-half reliability coefficient were also used to assess the internal consistency of the entire scale.

Table 1: Reliabilities of Scales

Competencies		Reliability Statistics	
	Cronbach's Alpha	Spearman-Brown Split-Half Coefficient	Split-Half Coefficient Guttman
Self Awareness	0.836	0.800	0.792
Self Management	0.892	0.910	0.907
Social Management	0.691	0.528	0.525
Relationship Management	0.907	0.922	0.922
Overall EI scale			0.69 to 0.9

The Table 1 shows coefficients of reliability for the 4 constructs of the Questionnaire and the total EI scale. The attribute that influence Social Management has lowest Alpha of 0.691, followed by the attribute of Self Awareness with 0.836 , followed by the attribute of Self Management 0.892 and followed by the attribute of Relationship Management of 0.907. Overall, all the items in each variable in the questionnaire have a good reliability. This is because all Cronbach alpha values are in excess of minimum value of the 0.691ecommended by Cronbach (1951) .The reliability coefficient of the sub-scales scale ranges 0.69 to 0.9, indicating the questionnaire used for the study is reliable.

Results and Discussion

Table 2: Comparison of Mean SD of Total EI Dimensions

	N	Minimum	Maximum	Mean	Std. Deviation
Total Self Awareness	116	1.80	5.00	3.6552	0.69324
Total Self Management	116	1.96	4.58	3.5753	0.57069
Total Social Management	116	2.00	4.56	3.5747	0.58323
Total Relationship Management	116	1.97	4.63	3.4931	0.57377
Total EI	116	1.99	4.45	3.5530	0.56204

In table 2, Level of Emotional Intelligence and various dimensions are in the range of 1 to 5, where the score 1 to 2.5 indicates Low EI, 2.5 to 3.5 indicates Moderate EI and 3.5 to 5 indicates high EI. The mean of Total EI is 3.55, which indicates a Moderate EI.

Table 3: Comparison of Mean and Standard Deviation of Various Aspects of EI by Gender are Given Below

Gender		Total Self Awareness	Total Self Management	Total Social Management	Total Relationship Management	Total EI
Male	Mean	3.728	3.6262	3.6356	3.5333	3.6037
	Std. Deviation	0.71896	0.58489	0.58298	0.55928	0.56099
	Median	3.8	3.8077	3.7778	3.7	3.7733
	N	75	75	75	75	75
Female	Mean	3.522	3.4822	3.4634	3.4195	3.4602
	Std. Deviation	0.63028	0.53826	0.57408	0.59935	0.55884
	Median	3.7	3.6154	3.5556	3.6	3.6133

	N	41	41	41	41	41
Total	Mean	3.6552	3.5753	3.5747	3.4931	3.553
	Std. Deviation	0.69324	0.57069	0.58323	0.57377	0.56204
	Median	3.8	3.6731	3.6667	3.6333	3.7067
	N	116	116	116	116	116
	Mann -Whitney U Test	1,232.00	1,268.500	1,256.500	1,358.500	1.255.500
	Asymptotic Sig (2 sided test)	0.077	0.120	0.104	0.301	0.103

Hypothesis 1: Gender influences emotional intelligence.

H_0: There is no significant difference in the factors of Emotional Intelligence between Genders.

H_1: There is significant difference in the factors of Emotional Intelligence between Genders.

In table 3, Males have higher mean score as compared to females on all aspects of EI.

Applying Mann-Whitney U test, p value comes to 0.103 for total EI score, which is > 0.05. Therefore there is no significant difference in factors of Emotional Intelligence between Genders i.e. Males and Females.

The result corroborated the work of **Saranya and Velayudhan (2008)** among 30 males and 30 females, university students regarding gender differences in emotional intelligence revealed that there is no significant difference in self awareness, self regulation, social awareness and social skills among day scholars - boys and girls.

Table 4: Mean and Standard Deviation of Various Aspects of EI between Age Groups

Age (Years)		Total Self Awareness	Total Self Management	Total Social Management	Total Relationship Management	Total EI
23-28	Mean	3.5042	3.4712	3.5833	3.4583	3.4839
	Std. Deviation	0.62029	0.52064	0.53663	0.45304	0.49151
	Median	3.6	3.5192	3.6111	3.65	3.6133
	N	24	24	24	24	24
29-33	Mean	3.5688	3.5457	3.6007	3.4875	3.5321
	Std. Deviation	0.65866	0.58325	0.6098	0.56738	0.56543
	Median	3.7	3.6346	3.6667	3.5	3.68
	N	32	32	32	32	32
34-39	Mean	3.6909	3.5559	3.5556	3.4404	3.5277
	Std. Deviation	0.7514	0.62663	0.58267	0.65552	0.61639
	Median	3.9	3.7308	3.6667	3.7	3.72
	N	33	33	33	33	33
40 & Above	Mean	3.8481	3.7265	3.5597	3.5951	3.6701
	Std. Deviation	0.70894	0.52588	0.62207	0.58854	0.56096
	Median	3.9	3.8462	3.6667	3.7333	3.8933
	N	27	27	27	27	27
Total	Mean	3.6552	3.5753	3.5747	3.4931	3.553
	Std. Deviation	0.69324	0.57069	0.58323	0.57377	0.56204
	Median	3.8	3.6731	3.6667	3.6333	3.7067
	N	116	116	116	116	116
Kruskal -Wallis Test		5.857	3.904	0.107	2.952	3.419
Degree of Freedom		3	3	3	3	3
Asymptotic Sig (2 sided test)		0.119	0.272	0.991	0.399	0.331

Hypothesis 2: Age influences emotional intelligence.

H_0: There is no significant difference in the factors of Emotional Intelligence between Age groups.

H_1: There is significant relationship difference in the factors of Emotional Intelligence between Age groups.

The result reveals in table 4 that the Mean score in the age group of 23-28 years is 3.4839 while in the age group of 29-33 it is 3.5321 and 34-39, the mean score is around 3.5 while 40 years and above it is 3.67. This indicates the EI increases with Age.

By applying Kruskal –Wallis test, p value comes to 0.331 for total EI dimensions, which is > 0.05 Therefore there is no significant difference in factors of Emotional Intelligence with different categories of Age.

The results corroborated the work of Van Rooy, Alonso and Viswesvaran (2005) have made a study in which a common measure of emotional intelligence was administered to 275 participants, (216 females) to examine how different group score on a test of EI differences were compared for age. Results indicated that emotional intelligence scores tended to increase with age.

Table-5: Mean and Standard Deviation of Various Aspects of EI by Current Experience

Experience in current organization (Years)		Total Self Awareness	Total Self Management	Total Social Management	Total Relationship Management	Total EI
Less than 1 3.6204		Mean	3.6969	3.6382	3.684	3.5604
	Std. Deviation	0.61878	0.54348	0.51432	0.47068	0.49823
	Median	3.75	3.75	3.7778	3.6667	3.74
	N	32	32	32	32	32
1.1 - 5	Mean	3.4726	3.456	3.4892	3.4	3.4398
	Std. Deviation	0.67706	0.57513	0.65114	0.6332	0.5961
	Median	3.65	3.5385	3.5556	3.5667	3.6
	N	62	62	62	62	62
Above 5	Mean	4.1091	3.8199	3.6566	3.6576	3.7739
	Std. Deviation	0.64654	0.52527	0.44034	0.50028	0.48511
	Median	4.15	3.9231	3.8333	3.8167	3.94
	N	22	22	22	22	22
Total	Mean	3.6552	3.5753	3.5747	3.4931	3.553
	Std. Deviation	0.69324	0.57069	0.58323	0.57377	0.56204
	Median	3.8	3.6731	3.6667	3.6333	3.7067
	N	116	116	116	116	116
	Kruskal -Wallis Test	14..286	8.827	1.894	5.738	8.701
	Degree of Freedom	2	2	2	2	2
	Asymptotic Sig (2 sided test)	0.001	0.012	0.386	0.057	0.013

Hypothesis 3: Current experience influences emotional intelligence

H_0: There is no significant difference in the factors of Emotional Intelligence in Current experience of the employee.

H_1: There is significant relationship difference in the factors of Emotional Intelligence in Current experience of the employee.

The result reveals that the calculated in table 5, Mean score of less than 1 year experience in the current organisation is of is 3.624 while Above 5 years experience in the current organisation is3.7739.This indicates that EI increases with the current experience in the organisation.

By applying Kruskal –Wallis test, with p value = 0.013 for total EI dimensions, (p >0.05) There is significant difference in factors of Emotional Intelligence with different categories of the current experience in the organisation.

The results corroborated the work of Pooja Pooja and Pranab Kumar (2015) have made a study on demographic

variables and its effect on emotional intelligence with Indian Service Sector employees with a sample of 424 employees to examine how different groups score on a test of EI differences were compared with current experience. Results indicated that emotional intelligence scores tended to increase with current experience.

Table 6: Comparison of Mean and Standard Deviation of Various Aspects of EI and Total Experience are Given Below

Total Experience (Years)		Total Self Awareness	Total Self Management	Total Social Management	Total Relationship Management	Total EI
1.0-5.0	Mean	3.5032	3.4293	3.6093	3.4118	3.4538
	Std. Deviation	0.64575	0.54602	0.55174	0.4709	0.50946
	Median	3.6	3.5	3.6667	3.5	3.5467
	N	31	31	31	31	31
5.1 – 10.0	Mean	3.4737	3.4818	3.5468	3.4044	3.4575
	Std. Deviation	0.65417	0.59084	0.60934	0.64259	0.59525
	Median	3.6	3.5577	3.6111	3.5333	3.6133
	N	38	38	38	38	38
10.1– 15.0	Mean	3.7842	3.7065	3.4971	3.5491	3.6288
	Std. Deviation	0.80226	0.6243	0.70211	0.67379	0.65614
	Median	4	3.8462	3.6667	3.8	3.8533
	N	19	19	19	19	19
Above 15	Mean	3.9821	3.7747	3.627	3.6655	3.741
	Std. Deviation	0.61044	0.47703	0.51339	0.48538	0.46871
	Median	4	3.9038	3.6667	3.8167	3.8933
	N	28	28	28	28	28
Total	Mean	3.6552	3.5753	3.5747	3.4931	3.553
	Std. Deviation	0.69324	0.57069	0.58323	0.57377	0.56204
	Median	3.8	3.6731	3.6667	3.6333	3.7067
	N	116	116	116	116	116
	Kruskal -Wallis Test	14.239	8.228	0.291	8.049	8.239
	Degree of Freedom	3	3	3	3	3
	Asymptotic Sig (2 sided test)	0.003	0.042	0.962	0.045	0.041

Hypothesis 4: Total experience influences emotional intelligence

H_0: There is no significant difference in the factors of Emotional Intelligence in Total experience.

H_1: There is significant relationship difference in the factors of Emotional Intelligence in Total Experience.

The result reveals that the calculated in Table 6, in all aspects of EI, Mean score of total experience with 1 to 5 years is 3.4538 and it increases with the increase in experience wherein above 15 years 3.741, this indicates EI increases with total experience.

By applying Kruskal –Wallis test, with p value = 0.041 for total EI dimensions, (p >0.05)

There is significant difference in factors of Emotional Intelligence with different categories of the total experience in the organisation.

The results corroborated the work of Priti Suman and A.K.Dasgupta have studied the relationship between emotional intelligence scores and scores from performance assessment checklist for a sample of 90 males and females from different streams of population were taken. The effect of demographic variables, e.g., gender, academic qualification, and work experience on EI score was also explored. The results indicate that there is a significant relationship between Emotional

Intelligence and Work experience. The result is in consonance with that of Abraham (2004), who expressed the view that emotional intelligence tends to increase as one matures and gains experience.

Table 7: Comparison of Mean and Standard Deviation of Various Aspects of EI and Department

Department		Total Self Awareness	Total Self Management	Total Social Management	Total Relationship Management	Total EI
1 Technical	Mean	3.5185	3.4815	3.5267	3.4216	3.4679
	Std. Deviation	0.63989	0.55554	0.55919	0.54099	0.5331
	N	54	54	54	54	54
2 Sales & Marketing	Mean	3.7222	3.6517	3.5247	3.5148	3.5911
	Std. Deviation	0.84961	0.63562	0.71989	0.68582	0.67189
	N	18	18	18	18	18
3 Support Functions	Mean	3.7955	3.6591	3.654	3.572	3.6418
	Std. Deviation	0.67063	0.55696	0.55593	0.56637	0.54615
	N	44	44	44	44	44
Total	Mean	3.6552	3.5753	3.5747	3.4931	3.553
	Std. Deviation	0.69324	0.57069	0.58323	0.57377	0.56204
	N	116	116	116	116	116
	Kruskal -Wallis Test	7.010	3.388	1.502	3.355	3.877
	Degree of Freedom	2	2	2	2	2
	Asymptotic Sig (2 sided test)	0.03	0.184	0.472	0.187	0.144

Hypothesis 4: Different Job functions influences emotional intelligence

H_0: There is no significant difference in the factors of Emotional Intelligence in different job functions i.e. department

H_1: There is significant relationship difference in the factors of Emotional Intelligence in different job functions .i.e. department

The result reveals that the calculated in table 7, Mean score of Department, for Technical – 3.4679, in Sales & Marketing it is 3.5911 and for Support functions – 3.6418 this indicates EI increases with different functions of the department.i.e. from Technical to Support functions.

By applying Kruskal –Wallis test, with p value = 0.144 for total EI dimensions, ($p < 0.05$)

There is no significant difference in factors of Emotional Intelligence with different functions of the department.

The study assesses whether managers in this financial organization who are deemed most effective according to their performance ratings exhibit higher emotional intelligence competencies than managers with lower performance ratings. They also studied the demographic profiles like Position, Department, Age, Gender etc. The data were gathered from a sample of 57 from the study population—79 members of the management team of a large regional financial organization selected to participate in an internal study on emotional intelligence. The results indicated that Support functions EI were greater than Sales functions EI.

Table 8: Comparison of Mean and Standard Deviation of Various Aspects of EI and Position

Position		Total Self Awareness	Total Self Management	Total Social Management	Total Relationship Management	Total EI
1 Juniors	Mean	3.6065	3.5524	3.6176	3.4805	3.5387
	Std. Deviation	0.67265	0.58166	0.55424	0.55494	0.55343
	N	77	77	77	77	77
2 Seniors	Mean	3.7513	3.6203	3.49	3.5179	3.5812
	Std. Deviation	0.73157	0.55303	0.63559	0.61596	0.58496
	N	39	39	39	39	39

Total	Mean	3.6552	3.5753	3.5747	3.4931	3.553
	Std. Deviation	0.69324	0.57069	0.58323	0.57377	0.56204
	N	116	116	116	116	116
Mann-Whitney U Test		1772.500	1599.500	1363.000	1611.000	1595.000
Asymptotic Sig (2 sided test)		0.113	0.567	0.417	0.522	0.585

Hypothesis 5: Employees in different managerial positions influences emotional intelligence

H_0: There is no significant difference in the factors of Emotional Intelligence in different managerial positions

H_1: There is significant relationship difference in the factors of Emotional Intelligence in different managerial positions.

In all aspects of EI, Mean score of Juniors and Seniors is almost same i.e. 3.5387 and 3.553

By applying Mann -Whitney test, with p value = 0.585 for total EI dimensions, it was found that there is no significant difference in factors of Emotional Intelligence with different Positions

The results corroborated the work of Jamali, D Sidani, Y Abu-Zaki, (2008), have studied through the Self reporting questionnaire in a sample of 225 Lebanese employees. The results indicate that Senior Managers consistently scored higher than the middle managers who in turn, scored higher than staff or lower level employees on every dimension of EI except for empathy where middle managers scored lower than both senior managers and staff

Conclusiona

The level of Emotional Intelligence (mean scores) of Managers in the Indian Pharma Industry indicates Moderate EI. It was also observed that Males have higher mean score as compared to female in all aspects of EI.

It was observed that the mean score of EI increased with the age but no significant difference was observed. It was also observed that EI increases with the current experience and total experience, this has been significantly proved in this paper. As per Daniel Goleman book "Working with Emotional Intelligence" it has been proved that EI increases with experience and maturity. The mean score for support function was higher than that of Technical team in all aspects of EI , but there was no significant difference between EI and Department functions. The mean score of EI for Position at Junior and Senior level is almost same. There is no significant difference between in factors of EI and Position.Thus it is recommended for conducting training programme on Emotional Intelligence in all the companies at the managerial level in the Indian Pharma Industry.

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Empirical Study on Using Professional Social Networking Sites as Recruitment Tool as a Preference By B-school Students

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Abstract

This study is carried out on management students who are currently in second year and looking for placements. The study has been based on the professional social networking sites (PSNS) who are aiding in the recruitment.The sample size chosen is 50 on convenient sampling.The sample comprises of experienced and inexperienced students both. The empirical study is carried on the sample. Questionnaire was floated which was tested through Cron-Bach reliability test. The reliability was found to be 0.68.It was found that students with experience preferred PSNS as a good tool of recruitment than students with no experience.

Background of the Study

In the current scenario , the management students usually depend on their networks and campus placement for taking up the jobs. Earlier it used to be references from their previous jobs or sources from internships and used to be few in numbers. But now the sources and networks have taken shape of professional social networking sites and recruitment has become easier. Thus, a survey was conducted to find out whether this stands true.Thus a sample of 50 management IInd year students were taken with equal no.s of experienced and inexperienced students and their preferences were studied.

Objectives

- To understand whether PSNS is preferable modes for recruitments used   by final year management students for jobs .
- To understand whether preference of experienced   students are same as inexperienced students.

Overview on Professional Social Networking Sites

For professionals and academics, social networking sites allow users to create networks of like-minded people. Academics find other scholars to share research or ideas, or simply to talk to and "get their name out there." Professionals find mutual friends and possible clients, employers, or business partners. Social networking expands the horizons of what sort of contacts people can make in their professional lives.In the world there are nearly 20 professional networking sites namely

1. AngelList :-is a social network that connects startups with investors to help raise funding; also allows for browsing of jobs at startups.
2. Beyond:-Beyond helps millions of professionals network with each other and find jobs to advance their careers.
3. Black Business Women Online:-Black Business Women Online is a blog and online community for black women entrepreneurs and professionals.
4. Data.com Connect:-Data.com Connect is an online community to share ideas, get feedback, and discuss industry best practices.
5. E.Factor:-E.Factor is an online community paired with a virtual marketplace designed for entrepreneurs by other entrepreneurs.
6. Gadball:-Gadball is a LinkedIn alternative that features profile and resume creation and job searching.
7. StartupNation:-StartupNation is a community focused on the exchange of ideas between entrepreneurs and new and aspiring business owners.
8. Upspring:-Upspring is a social networking site for promotion and social networking.

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9. Gust:-Gust connects startups with a large pool of investors across the world to help raise early-stage funding.

10. LinkedIn:-LinkedIn is a professional network that allows you to be introduced to and collaborate with other professionals.

11. Meetup:-Meetup is a networking website for finding like-minded groups and meetup opportunities locally.

12. Networking for Professionals:-Networking for Professionals is a business network that combines online business networking and real-life events.

13. Opportunity:-Opportunity is a business network built around a lead generation tool that connects you to other professionals who could bring you leads, sales, and clients.

14. Viadeo:-Viadeo offers social networking for professionals, mostly popular in France, but has members from around the world.

15. XING:-XING is a European business network with more than 7 million members.

16. PartnerUp:-PartnerUp is a Google+ community connecting small business owners and entrepreneurs.

17. PerfectBusiness:-PerfectBusiness is a network of entrepreneurs, investors, and business experts who encourage entrepreneurship and mutual success.

18. Plaxo:-Plaxo is an enhanced address book tool for networking and staying in contact.

19. Quibb:-Quibb is a social network that connects professionals through the use of business news and informed commentary.

20. Ryze:-Ryze is a business networking community that allows users to organize themselves by interest, location, and current and past employers.

Out of all options available the most preferable site is Linkedin. Its reach is very high across the world .In India , especially this site is the most revered for professional networking.It was launched in 2003 and in 2017 it garnered nearly 530 million users across 200 countries.Facebook also started with its professional networking venture named " Facebook at work" but it didn't do well and hardly people know about it.

It took time for Linkedin to become famous. Facebook was launched in 2004 and Linkedin in 2003 but for almost a decade Linkedin was unrecognizable in comparison to facebook.

Literature Review

1. YuLin&Peng –Lu in 2011, studied 402 people and found that enjoyment was the major motivator to join social networking site.

2. Van& Dao in 2015,studied impact of social media advertising on south east Asian countries. The inference was that the impact was positive on online buying.

3. Jung et.al in 2015 studied in Korea about the impact of ads on social network. It was found that paid ads were not accepted in comparison to personalized ads from friends or acquaintances.

4. Schivinski&Dabrowski in 2014 investigated 504 facebook users for reach of opinion across networks . It was found that peoples opinion made difference in buying than the ads made by the firm.

5. Akar&Topcu in 2011 using a young age group studied that social networking is an effective tool to promote brands.

6. Xiong and Liu in 2014 studied that social networking is an important tool for opinion formation.

7. Dowthwaite in 2012 studied that social media is an important tool of communication in any situation of crisis.

Research Methodology

Data collection

- The data used is primary data from students of one management schools in Navi Mumbai.
- The study is targeted to Master of Management studies second year students.
- The students were mostly in the age group of 21 to 30 years and both genders males and females are taken as samples. They are experienced with some experience or freshers with no experience.
- he total sample size is 50.
- The scale used is ordinal scale.
- The sample is collected through convenient sampling.
- The sample size is 50 divided into two groups as per their response –

- The students who gave preference to response agree or strongly agree.
- The students who gave preference to response dis agree or strongly disagree.
- Some responses were neutral by choosing can't say.
- The instrument used and its administration:-
- The instrument used has 17 items . The independent variables are gender, Age group , occupation, Experience, and qualification . The Likert scale is used with 5 responses-strongly agree, agree, can't say, disagree, strongly disagree.
- The reliability of the questionnaire is checked using Cron-bach alpha. The reliability found was .68. The required level is above 0.5. As the reliability was found to be more than 0.5 thus results are satisfactory.

Statistical Analysis

Hypothesis

H0 : There is no difference in choosing PSNS as tool for recruitment amongst experienced and inexperienced management students.

Testing of Hypothesis

In order to compare actual and expected evaluations the chi –square test is conducted to test the hypothesis.

The responses were collected from students with experience and no experience on the basis of their preference for PSNS as a tool for recruitment.

Preference factor	Experienced	Inexperienced	Total
Preferred tool for recruitment	17	8	25
Not preferred tool for recruitment	3	22	25
Total	20	30	50

Preference Criteria	Experienced	Inexperienced	Total
Preferred tool for recruitment	17(10)*	8(15)*	25
Not preferred tool for recruitment	3(10)*	22(15)*	25
Total	20	30	50

* Expected frequencies are in parentheses. They were calculated as follows:-

$$E_{ij} = \frac{R_i C_j}{n}$$

$$E_1 = \frac{(25)(20)}{50} = 10; \quad E_2 = \frac{(25)(30)}{50} = 15; \quad E_3 = \frac{(25)(20)}{50} = 10; \quad E_4 = \frac{(25)(30)}{50} = 15$$

$$x2 = \frac{(17-10)2}{10} + \frac{(8-10)2}{10} + \frac{(3-15)2}{15} + \frac{(22-15)2}{15}$$

=4.9 + 0.4 + 9.6 + 3.26

= 18.16

The number of degree of freedom equals to 1:

(R-1) (C-1) = (2-1) (2-1) =1

The critical value at the .05 probability level with 1 df is 3.84.

The calculated value is 18.16 ,which is far more greater than the table value .Thus the null hypothesis is rejected. It means there is significant difference in the choices of experienced and inexperienced for PSNS.

Conclusion

Management students with experience preferred PSNS as good tool of recruitment as compared to management students with no experience.

Limitations

1. The sample which is selected is convenient sampling thus the uniformity is not maintained.
2. The age group varied quite broadly because the management professionals belong to different age profiles.
3. This study is still in the exploratory phase, thus the literature available was not optimum.

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Digitization is a Shift in Human Resources Management Paradigms

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Abstract

Due to technological advancement all over the world and its increasing proliferation leads to digitalisation of society. This digital revolution has its effect on contemporary organisations at multiple levels. Digitalization is a brave new world for many HR functions, in the digital era the expression most heard "change is the only constant," couldn't be more true. Irrespective of businesses organisations are dealing in, are challenged to radically rethink and workout their business models and make required changes that enables the organisations to keep up with the transformations all over the world. Enabling the workforce to keep pace with the changes as well is the most crucial factor when digitalisation of HR is to be planned. In this digital era employees needed are more flexible, open-minded, and ready to go the extra mile that it sometimes takes for success. To be leading-edge in HR in real sense, the digitisation strategy also requires an HR organization that is agile, "run simple," and built on high-performance technological architecture. To attract talent with state-of-the-art features like virtual cooperation to combine scalability with "human touch" is also important. Human resources stand to benefit greatly from digitisation trends. Across all industries, human resources (HR) is one of the departments that are most affected by digitization – via big data analytics, social networks or mobile solutions, etc. – but that also stand to benefit greatly from it. Digital transformation is prompting human resources management to shift paradigms. Companies incorporating digital transformation into their strategic framework leverage digital technologies in order to transform their business models, their operations and their interactions with stakeholders. With digitisation of HR Processes, companies need to radically change a culture which leads to innovative digital changes and provides ultimate satisfaction to the employees. With the evolution of HR operating model, the innovative technologies that leads to digitization, automation and scaling of HR administrative tasks which gives out resources to deliver specialized HR services like individual career consulting. A process of sense making can only be considered as a key component while managing the implications of HR when understanding what digitalisation entails for the specific contest.

Keywords:- Proliferation, Sense Making, Paradigms, Technological Architecture, Leading-Edge, Transformation. 3

Introduction

Digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business. It is the integration of digital technologies into everyday life. Digitisation also means the process of making digital everything that can be digitized and the process of converting information into digital format. Most organizations are a complex, fluid, and heterogeneous amalgamation of activities, many of which may loosely be defined as "strategy." Across all industries, human resources (HR) is one of the departments that are most affected by digitization – via big data analytics, social networks or mobile solutions, etc. – but that also stand to benefit greatly from it. Digital transformation is prompting human resources management to shift paradigms.

The downpours of future are impacting the way we travel, live, work and do business. Yes, business is one such arena that is doomed to witness huge seismic shifts in terms of technological advancements. Self-driving cars, 3D printing, robots, virtual reality, wearable technology and what not. We are already breathing the future. The future was and will always be enthralling and full of jaw-dropping surprises. The downpours of future are impacting the way we travel, live, work and do business. Business is about people irrespective of the industry a company operates in. Its people i.e., employees are the biggest assets and competitive advantage. In fact, they are the ones that make the magic happen. Talk about employee engagement or management and the very first word to pop in our heads is 'human resource (HR) professionals'.

Advanced technological growth has revolutionized the society with continuous impact and radically change the way organizations work. It is actually pressurising the organizations and people therein to get acquainted to the fast-changing world and the increasing amount of 4

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digital innovations. Digitalization has become a buzzword in the organizational press, and addressed as something organizations must embrace in order to stay relevant (e.g. Cap Gemini, 2013; Spitzer, 2014; Goldstein, 2015; Deloitte, 2016). According to Andersson (2017), transformation is required on all levels, in order to create a modern organization that has the ability for continuous change.

To be digitalized is a fashion these days for an organization, digitalization impacts organizations on multiple levels. Computers will increasingly replace all manual work tasks (Cöster&Westelius, 2016). Intelligent computer programs such as Artificial Intelligence (AI), will also replace non-repetitive intellectual tasks (Makridakis, 2017), as the access to a bigger amount of information increases; commonly referred to as 'Big data' (Shah, Irani& Sharif, 2017). The traceability increases as more digital tools are connected to the Internet, 'Internet of Things', and thereby sending status information (Ebersold & Glass, 2015). These are only examples of how digitalization is currently taking place in society. The common denominator in this debate is that the digitalization permeates everything – everything that can be digitized, will be (Andersson, 2017). This not only changes how we communicate and interact as humans, but in turn also revolutionizes how organizations themselves operate, which implies big changes for any human resources manager (Larkin, 2017).

Palmer, Dunford and Buchanan (2017) illuminate an interesting example of how digitalization has implications for HRM. The global software company Adobe, decided to stop selling its products in physical packages and became a cloud-based software provider in 2011 (Smedley, 2014). Now instead of buying CD in a box, customers either have to go for downloading or signing up for a monthly subscription. Digitization also resulted in to new ways working for employees and accordingly a complete makeover for the human resources management (HRM) function. Of course it is not at all that cloud-based approach will 5

replace previously office-bound administrative HRM function and guide the employees in their new ways of working.

Emerging new technology demands a need for HRM becoming business partner, where HR staff will work closely to the senior managers and employees. Therefore variation will be seen in the role of HRM and it will become more people-oriented, designing diverse, challenging jobs to make complete utilisation of the new generation employees to a greater extent. The way performance reviews been done for years together needs to be taken over by continuous and immediate feedback through new systems and workshops abandoning the annual reviews (Palmer et al., 2017; Smedley, 2014). This is how digitalization has affected the HR function; HRM has to change to be able to support the new development of the company in a sufficient way.

Furthermore, El-Khoury (2017) argues that digitalization changes how employees in the workplace interact, what they expect from their employer and careers, as well as when and where work is conducted. In this sense, the development of digitalization impacts organizations internally on many levels, as it requires the adaption and development of new knowledge and new ways of working (Bondarouk&Ruël, 2009). Also, Heracleous (2003, p. 105) emphasizes the importance of investing in the development of required new skills "(...) especially if the change involves new technology and new roles". Digital technology is for example continuously changing how organizations hire, manage and support people (Bondarouk&Ruël, 2009). As a key part of the core mission of HR managers is to attract, support and develop the employees in line with the overall organizational strategy (Watson, 2009), we believe it is interesting to look further into what consequences digitalization has for HRM. Due to digitalization of society it is evident that immense pressure is being put on organizations and its people. 6

Regarding many contemporary organizational topics, consulting firms are quick to produce reports on how to manage the latest trends. Some of these articles state that today's HR-work involves simplifying and improving the employee experience by integrating digital technology, which has resulted in the new approach called 'digital HR' or 'e-HRM' (e.g. Spitzer, 2014; Deloitte, 2016; CapGemini, 2013). Lot of technologies are developed which have streamlined HR processes such as planning, recruitment and performance management through the use of digital tools (e.g. Obeidat, 2015; Voermans&Veldhoven, 2007; Stone &Dulebohn, 2013; Bondarouk&Ruël, 2009; Yuslizaa&Ramayah, 2012; Marler& Fisher, 2013; Grant & Newell, 2013). However, this approach of 'digital HR' or 'e-HRM' has a stronger focus on the digitization of HR processes.

Bell, Lee and Yeung (2006) argue that the digitalization and the use of technology has resulted in further implications for the role of HR, its capabilities and competencies. Furthermore, Larkin (2017, p. 58) argues "the change to the HR department that digital technology will bring will be all pervasive and omni-directional throughout every company". Consequently, digitalization affects HRM further than just through facilitating daily administrative work.

Benefit of Digitisation of HR Processes

Across all industries, human resources (HR) is one of the departments that are most affected by digitization – via big data analytics, social networks or mobile solutions, etc. – but that also stand to benefit greatly from it. Digital transformation is prompting human resources management to shift paradigms. Companies incorporating digital transformation into their strategic framework leverage digital technologies in order to transform their business models, their operations and their interactions with stakeholders. With digitisation of HR Processes, companies need to radically change a culture which leads to innovative digital changes and 7

provides ultimate satisfaction to the employees. With the evolution of HR operating model, the innovative technologies that leads to digitization, automation and scaling of HR administrative tasks which gives out resources to deliver specialized HR services like individual career consulting, strategic HR support for executives and senior-level leaders, and more. All these things require an HR operating model with clear customer segmentation as well as an innovatively designed HR process landscape to allow simplicity, scalability, and continuous improvement.

Digitization is impacting all aspects of HR delivery – as revealed by Deloitt 2015 study Reach for the cloud: The HR software market looks to 2020. For example, traditional systems with Web-browser access are being replaced by cloud and app-based solutions geared toward mobile access. Service level agreements are being exchanged for real-time interactions in a "once and done" approach. Periodic HR reporting is giving way to interactive real-time dashboards. Printed forms are being swapped for digital versions. At the same time, the focus of HR tools and systems is moving steadily away from processes and toward employees. In the past, the main goal of introducing new HR tools and systems was to automate HR processes; HR and the employees themselves were given a participating role. HR was concerned with creating standards for compensation and benefits, recruiting in line with legal requirements, evaluating performance fairly, and introducing integrated talent management – a novel idea in the 2000s but now little more than a hygiene factor. The new guiding principle in HR IT projects is designing tools and systems that concentrate on the needs of the employee – a truly "employee-centric" approach. HR is focusing on employee engagement, with tools for aligning team goals, coaching, giving feedback, evaluating real-time engagement, enabling individual learning, implementing new ways of managing performance and ensuring a healthy work-life balance. These tools are increasingly app-based, mobile and user-friendly 8

HR operating model: The technological innovations behind digitization automate and scale HR administrative tasks, which frees up resources to deliver specialized HR services like individual career consulting, strategic HR support for executives and senior-level leaders, and more. This requires an HR operating model with clear customer segmentation as well as an innovatively designed HR process landscape to allow simplicity, scalability, and continuous improvement. Roland Berger and EgonZehnder provided impulse material focusing on digitalization of HR processes and instruments incorporated , the new challenges for competence management, the diminishing importance of hierarchies and the news perspectives for people communication. While digitization presents many new challenges, it also provides HR departments with the exceptional opportunity to strategically reshape and reinforce their roles within their organizations. "I see many clients rushing from one decision to the next, without the proper strategic alignment," said Zimmermann.

Ambition/Challenges

Digitalization is a brave new world for many HR functions, but the promise it holds for analytics, and better talent management decision-making, is too great to be ignored." In the digital era, an HR strategy needs to foster a culture that inspires innovation, leads digital change, and creates the ultimate employee satisfaction. The all-digital world is changing how we live, how we work, and how business is organized and conducted. For HR and business leaders, this digital transformation poses two fundamental challenges. First, HR can help business leaders and employees shift to a digital mind-set, a digital way of managing, organizing, and leading change. Second, HR has the opportunity to revolutionize the entire employee experience by transforming HR processes, systems, and the HR organization via new digital platforms, apps, and ways of delivering HR services.

Today there are more than 7 billion mobile devices in the world and more than 40 percent of all Internet traffic is driven by these devices. Yet HR teams remain far behind in deploying 9

mobile solutions. Fewer than 20 percent of companies deploy their HR and employee productivity solution on mobile apps today. Designing mobile apps and considering the end-to-end user experience are new disciplines for HR, combining design thinking with apps, video, social, and mobile technologies. Digital HR, which brings together social, mobile, analytics, and cloud (SMAC) technologies, represents a new platform for improving the employee and candidate experience. While vendors are now delivering solutions, companies should build their own integrated digital HR strategies and programs.

Future Prospect

In thisdigitized world where technologies and innovations are emerging every now and then and has its effects on each and every sector of this corporate world. Where the main concern is now about the future of HR, about the essence and function of HR and the role of technology in reshaping the roles of human resource personnelas industry experts foresee some really cool and futuristic stuffs for HR and following are the few prominent ones.

HR administration chores will be consolidated: Human resources department that distributes HR admin tasks all throughout the organization is actually blowing up a lot of money. And not really reaping the benefits of technology. Whether the consolidation of HR admin chores are in-house or are outsourced, it would certainly get consolidated in the future probably via a centralized HRMS solution. A concept namedPocket HCM, it is basically a software which is inclusive of all HR functions, it's inclusive of payroll software which has completely redefine the payroll system of an organization.

From IT to manufacturing and hospitality to retail enterprises, each and every industry is in the process of getting digitized and relies on Pocket HCM, cloud payroll software. Intelligent leave and time tracking, attendance management, employee self-service portal app, loan 10

tracking and the quintessential payroll processing, cloud payroll management software does it all in a seamless fashion.

Excellent Automation of the systems is done through digitization which is actually in the process of giving total VALUE for money. Excellent automation abilities of these kinds of software like Pocket HCM make it one of the best payroll software in India. It eliminates the tiring process of manual computations of salary, employee tax, loans, incentives, etc. saving efforts and time for HR professionals. Days of redundant-free payroll are here.

In these kinds of software which helps in consolidation of HR functions there is no need to invest in additional hardware and IT crew, these type of cloud payroll software helps to save a decent amount of money. This makes these types of software for HCM a front-runner for a multitude of businesses.

These cloud based software which actually helps in consolidation of HR functions are fully scalable , its functions helps with the growth of the business and further helps business to grow. These kind of cloud based pocket-friendly SaaS based subscription plans, cloud payroll management system offers the companies a liberty to pay-as-you-go. Makes it easy to blend in with organisational changes addressing all the evolving payroll and HRM challenges seamlessly without exceeding the budget.

With digitalization of various HR processes, AI & Robots will take over monotonous HR chores; these would be doing most of the intricate and tiring HR tasks. For instance, many companies find it difficult to transfer employees due to multiple payroll tools or intricate legal structures. Eventually, a few years down the line, these soft wares will provide us with a facility to program a machine to do that in a very quick and seamless manner.

In this digitalized era, with the emergence of technological innovations most of the corporate sectors have brace themselves for more strategic and intuitive breed of HRs, Human resource 11

professionals of the future would be in a much better position to foresee the course of employee management rather than just offering indicators. The future won't be about cribbing over employee turnover, but it is expected to be about telling what the turnover rate would be. IoT(Internet Of Things), Big Data and SMAC (Social Media, Mobile, Analytics and Cloud) collectively will make real-time management possible for human resource people. In addition, insightful data and algorithms would help HR managers and recruiters to make better hiring decisions. The concept of specialization would be vanishing with these cloud based technology, the concept of specialist is on the horizon; Gone are the days when HRs used to make decisions based on their gut feelings and things they hear at the coffee machine. BI intelligence, analytics and big data would turn a core competency thus, HR professionals that you would recruit in the future will possess marketing degrees, statistic degrees, economics degrees, but they still will be able to plan and execute a good Christmas bash.

Digitization of HR functions and processes actually helps managing remote workforce which is actually become a most crucial task at this point of time. Mobile technology would be the future of employee management. Managing remote or mobile workforce is one of the greatest challenges for businesses worldwide. Presently companies will need folks with specific skillsets. In future, people with such skills can work from anywhere, which is made possible with cloud and mobile based HR solutions that facilitate HR to manage workforce on the go. Cloud based HR software and intelligent analytics allow maintaining and collecting all the relevant HR data on a centralised hub providing easy access to the users 24×7 from any remote location. All that is a computer and a reliable Internet connectivity. It enables everyone to be on the same page in the organisation making it a fantastic human resources management tech tool. 12

Social media has traversed a long way since its inception and has lived up to all the expectations, be it keeping in touch with family/peers or voicing out your views or opinions to the world. For human resources department, social media for recruitment has become a norm these days whilst also assisting in employee engagement, talent management and branding. For instance, HR and hiring experts can skim through pools of talents on social media platforms with just a few clicks, and can also run their recruitment campaigns on popular social networking websites. In fact, social media and Big Data if used aptly can work as an unrivalled tool for effective cohesion and communication across the organisation.

For the millennials or the Gen-Y workforce, desktops are fast turning to be a passé, as mobiles/smartphones have paved their ways in every aspect of our lives these days. This has given birth to a new phenomenon known as Mobile HR which when used effectively results in optimum employee management for human resource professionals. To connect with the right set of talents, HRs of the present era ought to embrace mobile-friendly technologies or tools such as mobile payroll or HR app. Simply put, it's time to be where your employees are, and these days it's mobile.

IoT-Internet of Things make it possible to monitor the performance of workforce on a consistent and real-time basis making the job of HR and managers a lot easier. Underperformers can be traced in the nick of time or at an early stage. In fact, the standard and formal appraisal practice executed every six months is fast becoming obsolete these days. This is how IoT is turning out to be a game changer for HR personnel. Timely reviews and rewards play an important role in strengthening the employee-management relationships. To put it simple, real-time evaluation gives managers and HR people a clear picture of problem employees or underperformers, who are not a good fit for the company at a premature stage. 13

Reality/Conclusion

The era of true digital disruption has finally hit HR, transforming the way HR delivers solutions to employees. With the founding of Workday in 2005, the acquisition of Success Factors by SAP in 2011, and the purchase of Taleo by Oracle in 2012, HR remains at the forefront of the move to digital and the cloud in the workplace. The barriers between work and personal life are dissolving through the use of mobile devices. Mobile has become *the* channel of preference for workers, giving organizations an opportunity to drive adoption of mobile HR technologies to an extent rarely seen with traditional HR platforms. Imagine integrated apps that can manage time and attendance automatically; pinpoint every appointment and meeting location; deliver on-demand video learning to participants in a new project; send messages to a team when someone is running late for a meeting; monitor stress levels and recommend.

When it is time to take a break; and even review 401(k) plans and offer intelligent recommendations. This is the new vision for digital HR—integrating SMAC technologies to redefine the employee experience and make work easier, real-time, more productive, and more rewarding—while, we hope, improving work-life balance.

This approach represents a completely new way of thinking about HR solutions. While the replacement of legacy systems into the cloud is a major part of the transition, so is the adoption of design thinking, integrated mobile app design, and real-time HR operations. The principles of behavioral economics, the use of analytics, and constant iteration on design also underpin these efforts. To succeed in this new paradigm, HR teams will likely have to partner with IT, adopt design thinking, use integrated analytics, and analyze vendor solutions carefully. It represents a new world for HR technology and design teams, one that will open up new career opportunities and transform the impact HR has on the business. Despite impressive results at these and other companies, too many HR departments have yet to 14

embrace this transformation. Today, only 7 percent of companies use mobile technology for coaching, 10 percent for performance management, 8 percent for time scheduling, 13 percent for recruiting and candidate management, and 21 percent for leave requests.7 The power of digital transformation is only beginning to emerge. This new world of digital HR is arriving fast, but, according to this year's survey, only 38 percent of companies are even thinking about it and only 9 percent are fully ready. Nearly three-quarters of companies, or 72 percent, believe this is an important priority and 32 percent define it as very important, so it will be a major area of opportunity for HR in 2016. Digital HR, however, is more than just building apps. It encompasses developing a new mobile platform with a wide range of apps built with cloud and analytics technology behind the scenes. This platform can be used for hundreds of apps: from time and attendance to employee wellness, to recruitment, collaboration, goal-setting, and more. The design is integrated, the user experience is location-aware, and integrated data are used to inform and make recommendations to users throughout the day.

We are living in exciting times for leadership and HR. So it is time to brace yourself and see how these tech trends would shape up the HR department and its working. Though it's not going to occur at a warp-speed, it certainly would make a huge difference once in practice. So this is what the experts picture as the future of HR. The next-gen human resource generation will be much targeted in its approach to a problem, since it would straightaway dive into the data behind the problem. Companies would be increasingly looking out for specific skillsets and would know where to invest hiring money to get the right talent with the required skills. 15

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A Study of Acceptability of The Indian Railway's Atvm Services By the Local Train Commuters

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Abstract

The advancement in technological sphere is bringing in rapid changes in every walk of life. This has pushed in changes in way ticketing and other allied services are carried out with the help of ATVM machines.

The research study attempts to highlight the acceptability of the Indian railway's ATVM services by the local train commuters. A questionnaire was developed and circulated among local train commuters in Navi Mumbai. The total sample were consisting of 330 respondents. The data was analysed using SPSS version 20. The study provides insight on various factors related to acceptability of the Indian railway's ATVM services.

Keywords: Indian Railways, Local Train, ATVM, Acceptability

Introduction

Automatic Ticket Vending Machine (ATVM) was produced by Indian Railways to reduce passengers queuing up for getting ticket at ticket counter at railway station. These are operated using smart card with touch screen. (A2, n.d.)**.** From nominated ticket counter the passengers can purchase and recharge smart cards. One of the biggest advantage of using ATVM is, it keeps free from long queue.

Working of ATVM

Using smart card passengers can save their time in queuing up. Those passengers having smart cards can get ticket or monthly pass for traveling using railway. For getting ticket the smart cards has to be placed on the slots of ATVM and user has to select the route and destination using touch screen, when user confirms the details then ticket is printed and user can get it. Overall process saves time and reduces the inconvenience while waiting in queue. After getting ticket, charges of ticket is deducted from the smart card. (ATVM, n.d.)

In short following steps need to be follows for getting ticket.

- Place your smart card on a slot.
- Select the language and zone
- Select destination, route and class.
- Select single/ return and number of child / adult ticket and then press ticket.
- Verify the details and print the ticket.

Literature Review

Following table shows data about top stations having ATVM machine usage.

Station Name	Year2014-2015	Year2015-2016
Andheri	6933	18316
Virar	3166	14469
Kandivali	2902	12386
Nalasopara	1741	11366
Dadar	4627	10908

Source: Secondary (A1, n.d.)

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In now days the wide crowd is traveling from bus and train especially in Mumbai (Local trains or Best buses) for traveling the session ticket or regular ticket is required. In Mumbai peoples are always in hurry and because of Mumbai's large population peoples have to stand in queues to buy the ticket or pass that process is so stressful for peoples when the peoples are in hurry. (Avhad, 2016)

Research Methodology

Research objectives:

1. The objective of this research is to find out the acceptability of the ATVM services.

2. To find out whether there is a difference in accessibility of different genders, education, occupations, commuting and age groups.

Hypothesis

1. Male passenger have higher Acceptability of ATVM machines.

2. Passenger have having higher age have higher Acceptability of ATVM machines.

3. Passenger in Service have higher Acceptability of ATVM machines.

4. Daily travelling passengers have higher Acceptability for ATVM machines.

Research Design

The research design is sample survey of railway passengers those who are using ATVM machines.

Sample

This study aims to collects data from railway passengers located in Navi Mumbai.

A random sample of 330 passengers is selected for the study. Data is collected from passengers living in Navi Mumbai.

Data Collection

For the study the data is collected from primary source. For collecting primary data structured questionnaire has used. A total 350 questionnaire were distributed to the respondents, out of which responses from 330 respondents have received, finally this data of 330 respondents are used for analysis.

Data Analysis

Data has been analysed using SPSS Version-20. The data analysis includes cross tables, with chi-square test, t-test and correlation.

Data Analysis

The section gives the details of the data analysis of the study. The collected data is presented as per the section of questionnaire.

Table No. 1.1 Distribution of Sample by Age

	Frequency	**Percent**
Below 20 Years	121	36.7
20-35	174	52.7
36-40	25	7.6
41-60	9	2.7
Above 60	1	.3
Total	330	100.0

Table No. 1.2 Distribution of Sample by Occupation

	Frequency	Percent
Student	216	65.5
Service	91	27.6
Self Employed	19	5.8
Others	4	1.2
Total	330	100.0

Table No. 1.3 Distribution of Sample by Education

	Frequency	Percent
Illiterate	11	3.3
Up to HSC	72	21.8
Graduate and Above	247	74.8
Total	330	100.0

Table No. 1.4 Distribution of Sample by Frequency of Commuting

	Frequency	Percent
Almost Daily	217	66
1-2 times a week	40	12
3-4 times a week	16	5
once in 15 days	15	5
Once in a month	17	5
Rarely/Never	25	8
Total	330	100

Table No. 1.5 Distribution of Sample by Gender

	Frequency	Percent
Male	146	44.2424
Female	184	55.7576
	330	100

Hypothesis Testing

The technique used for testing the hypothesis is Chi-Square t-Test and Frequency are used to test the hypothesis.

Table No. 1.6.1 Acceptability on Gender

			Acceptability of ATVM (Level)		Total
			Low	High	
Gender	Male	Count	65	81	146
		% within Gender	44.5%	55.5%	100.0%
	Female	Count	77	107	184
		% within Gender	41.8%	58.2%	100.0%
Total	Count	142	188	330	
		% within Gender	43.0%	57.0%	100.0%

Table No. 1.6.1 Acceptability on Gender- Chi-Square Tests

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.237[a]	1	.626		
Continuity Correction[b]	.141	1	.708		
Likelihood Ratio	.237	1	.626		
Fisher's Exact Test				.655	.354
Linear-by-Linear Association	.236	1	.627		
N of Valid Cases	330				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 62.82.

b. Computed only for a 2x2 table

An analysis was performed to find out the likelihood of acceptability of ATVM by Gender. It was found that the chi square value is p=0.354 (NOT SIGNIFICANT).

Thus it was found that the hypothesis "Male passenger have higher Acceptability of ATVM machines" is rejected.

Table No. 1.7 Acceptability on Age

			Acceptability of ATVM (Level)		Total
			Low	High	
Age	Below 20 Years	Count	5368	121	
		% within Age	43.8%	56.2%	100.0%
	20 and Above	Count	84115	199	
		% within Age	42.2%	57.8%	100.0%
Total		Count	137183	320	
		% within Age	42.8%	57.2%	100.0%

Table No. 1.7.1 Acceptability on Age- Chi-Square Tests

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.078[a]	1	.780		
Continuity Correction[b]	.026	1	.871		
Likelihood Ratio	.078[a]	1	.780		
Fisher's Exact Test				.816	.435
Linear-by-Linear Association	.078	1	.781		
N of Valid Cases	320				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 51.80.

b. Computed only for a 2x2 table

An analysis was performed to find out the likelihood of Acceptability of ATVM machines by Age. It was found that the chi square value is p= 0.435 (NOT SIGNIFICANT).

Thus it was found that the hypothesis "Passenger have having higher age have higher Acceptability of ATVM machines" is rejected.

Table No. 1.8 Acceptability on Occupation

			Acceptability of ATVM (Level)		Total
			Low	High	
Occupation	Student	Count	93	123	216
		% within Occupation	43.1%	56.9%	100.0%
	Service / Self Employed / Others	Count	47	63	110
		% within Occupation	42.7%	57.3%	100.0%
Total		Count	140	186	326
		% within Occupation	42.9%	57.1%	100.0%

Table No. 1.8.1 Acceptability on Occupation- Chi-Square Tests

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.003[a]	1	.955		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.003	1	.955		
Fisher's Exact Test				1.000	.525
Linear-by-Linear Association	.003	1	.955		
N of Valid Cases	326				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 47.24.

b. Computed only for a 2x2 table

An analysis was performed to find out the likelihood of Acceptability by Occupation. It was found that the chi square value is p=0.525 (NOT SIGNIFICANT).

Thus it was found that the hypothesis "Passenger in Service have higher Acceptability of ATVM machines" is rejected.

Table No. 1.9 Acceptability on How Frequently do you Commute

			Acceptability of ATVM (Level)		Total
			Low	High	
How frequently do you commute?	Daily	Count	85	132	217
		% within How frequently do you commute?	39.2%	60.8%	100.0%
	Not Daily	Count	57	56	113
		% within How frequently do you commute?	50.4%	49.6%	100.0%
Total		Count	142	188	330
		% within How frequently do you commute?	43.0%	57.0%	100.0%

Table No. 1.9.1 Acceptability on How Frequently do you Commute- Chi-Square Tests

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.851[a]	1	.050		
Continuity Correction[b]	3.405	1	.065		
Likelihood Ratio	3.837	1	.050		
Fisher's Exact Test				.061	.033
Linear-by-Linear Association	3.840	1	.050		
N of Valid Cases	330				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 48.62.

b. Computed only for a 2x2 table

An analysis was performed to see the Acceptability of passengers travelling regularly. It was found that the chi square value is p=.033 (SIGNIFICANT).

Thus it was found that the hypothesis "Daily travelling passengers have higher Acceptability for ATVM machines" is proved.

Conclusion

The digitization   process in various departments of Government is currently on growing trend. Every Department is currently doing digitization. Railways are also introducing new ways and methods to make life of passenger convenient and easy. For this reason ATVM machines are installed at different locations in Railway station across India to reduce passengers queuing time.

The study tried to collect data from passengers in Mumbai Local train (Specifically Navi Mumbai region) using ATVM machines. The study tried to test the acceptability of ATVM machines on various demographic factors like- Gender, Age, Occupation and frequency of travel.

It was found that there is significance frequency of travel and acceptability of ATVM machines. Hence we can conclude that regular local train passenger are using ATVM machines and they find it beneficial and are widely using it**.**

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Acknowledgement

An Analytical Study of Executive Stress Management In Selected Industries of Thane District

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Abstract

In the recent years, the problem of Executive stress has received an excessive amount of attention in the researches undertaken in the field of management and management psychology. This special focus on the subject of executive stress is due to the fact that the continuously prevailing executive stress continues to take its toll on human health , human life and human enterprise. This hinders career, success shortens live, impairsmental and physical health ;all in all, it diminishes the effectiveness of an individual in all fields of life.

The paper focuses on the comparative study of job stress level of Executive amongst the Manufacturing and Service sector as well as the effects of the same on their respective work and life performances.

***Keywords**: Stress, Executive, Stress Management.*

Introduction

Stress is common element and everyone has to face it in almost every walk of life, and in any kind of job. It is being said that continuous stress can kill a person a day. It affects the body, mind, as well as the behavior of a human being. The 21'st century is pitched as the age of competitions. Hence, the human beings have an unending relationship with irrational deadline, cut throat competitions, tight work schedules, organizational politics etc. Unfortunately, these are an integral part of human life and cannot be avoided. Thus the vicious circle of stress becomes inevitable.

In any organization, executives are individuals having a legitimate authority to control command and execute actions. An Executive's prime responsibility is to take a decision which would lead the organization to success. Being in such a decisive position the executive are continuously subjected to professional anxiousness and nervousness. In recent time, the executive have being confronting a unique set of stressors viz . Rapid change all sectors of economy, organizational politics, outsourcing of various services and professions, rapid expansion of knowledge base etc. This intern gives rise to turmoil, apprehensions and stress in the executive resulting in the decline in their physical and mental health. The stress thus has ill effects on the executive as well as the overall performances and eventually would affect organization.Keeping all these things in mind this continuous increase in organizational stress especially for executives, this study aims to find out the mechanisms and strategies to overcome stress.

For the purpose of this study, the researcher has chosen to investigate the topic of executive organizational stress in Thane district of northern Maharashtra state in western India. Thane is situated between 18 degree42' and 20 degree 20' north latitudes and 72 degree 45' and73 degree 48' east longitude and the area of district is 9558 sq km. It is the third most industrialized district in the state. There are 1548 large and 147 medium scale and 18,480 small scale industries in Thane. The Thane –Belapur -has highly sophisticated and modern industries with manufacturing of machinery, machines tools and parts except electrical machinery, together with Iron and Steel industries and chemical product as the most important and biggest group of industries.

Operational Definitions of Concept

Stress

Stress is a well-studiedterm in the fields of Psychology and Biology. It is the physicaland psychological strain causedasone's response to burden from the outside world. It is almost impossible to live without any stress.Moreover,everyone wouldn't want to give up stress because it brings the elements of interest and excitement toone's life. It is the uncontrolledstress that may harm one's health,relationships and take away the enjoyment of life. Common reactions to over stress in humans mayincludetension, irritability, the inability to concentrate anda variety of physical symptoms likea headache, tachycardia, etc.

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"stress occurs when there is a perceived imbalance between pressure and coping resources for a particular situation"- Jane Cranwell- Ward and Alyssa Abbey.

Dr.D.M.Pestonjee –"Stress is the emotional and physical strain caused by our response to pressure from outside the world".

Stress Management

Stress management enhances one's coping ability with external stressors and their internal consequences. It has three broad possibilities – prevent or control it, escape from it or learn to adaptto it. As the quote suggests "Prevention is better than cure", effective steps should be taken to prevent the occurrence of stress at the initial stages rather than treat its unwanted results when the damage has already been done. Effective stress management can be undertaken at the organizational leveland the individual level in many different ways. Stress management can be divided into two stages; the first is coping with stress and the second is counteracting the stress with the help of relaxation response. It is important to notethat relaxation strategies can be useful for managing stress in the short term, but because they do not remove the cause of stress, they are not useful for managing stress in the long term.

"Preventive programs which underlineindividual training in stress management are among the most frequently offered health promotion services at work site"(Donaldson,1993 and Invancavich et al.1990). Such interventions help individuals manage stress and cope with it on a regular basis.

Literature Review

There is direct relationship between performance and job stress. Pressure of higher productivity, quality of work,deadlines etc. brings high stress amongst the Executives.

In the article 'Burnout' published in Indian Journal of Occupational and Medicine 2006, Kulkarni(2006)[9] suggests that rapid change of the modern working life is associated with increasing demands of learning new skills, need to adopt to new types of work , pressure of higher productivity and quality of work, time pressure and hectic jobs thus elevating the stress.

A similar view is noted in the study on Executive stress by Malhotra (1996)[1].He has reported that unreasonable performance pressure and demanding life styles of executives often cause health problems. The author has analyzed the impact of techniques such as meditation, yoga, aerobics etc. for a stress free culture.

Cropanzo etal. (1997)[2]has study that also supports this view. According to him there is a relationship between organizational politics and individual stress factor such as job tension, somatic tension and general fatigue.

Babak et al,(2010) [11] says "With excessive pressures, the job demands cannot be met, relaxation turns to exhaustion and a sense of satisfaction replaces with the feelings of stress, motivation sheds away and the workers start losing interest in the work and hence performance chart shows a negative trend."

Upadhay and Singh (1999)[3]noted that the executives experienced more stress than teachers did. He also concluded that the factors like role overload, intrinsic impoverishment and status also contrasted in these cases.

Stress management is about being able to manage one's own stress at an individual or organizational level. A study involving stress management focused son Indian I. T. scenario suggests planning an effective time management surely helps through the stress. (R.Dhanpal, V.Ranjith kumar) [5]

Lim and Teo 7 (1996)[4] examined the gender differences in occupational stress and coping strategies among IT personnel in Singapore. His analysis indicated that female IT professionalsexperiencing stress, tend to seek social support by talking to one another while men tend to suppress their emotions and deal with problems in a very logical and unemotional manner.

Most women are better in dealing with their stress because they are likely to talk about it to a friend, colleague or a member of their family. Of course they are multi-tasking due mainly to the neurological wiringbetween compartments of their brain. This is different from man which allow them to use more parts of their brain concurrently.-(Stress And Work-Life Balance-David Newth2011)[6]

Women are more likely to engage in sedentary social activities like reading, spending time with friends or familyetc.to manage stress. (Stress, Workholism And Job Demands A Stydy Of Executivein Mumbai-Manjiri Shrivastava)[7]

Compared to men women prioritize on having healthy relationship, healthy lifestyle and managing stress.-(Stress in America.org)[8]

Gaur and Dhawan (2000)[10] have noted that women professionals used active coping stance, playfulness and initiative as adaptive pattern in the work place.

The performance of individuals also decreased when stress is caused by inability of individual to maintain a reasonable balance between family life and work life as he/she has to spend a lot of time in his /her working.

McCubbin andFigley (1983) [12]suggested that "Job related stress can be mostly immobilizing because of its possible threats to family functioning and individual performance.

Jungwee Park (2007) [13]contributed "Physical exertion and job insecurity can also cause stress" so job insecurity is also a major cause of stress on the job that negatively affect the performance of employees in the banking sectors.

Sullivan and Bhagat (1992) [14] observed four possible situations regarding performance and stress (a) stress may increase performance, (b) stress may decrease performance, (c) stress may have no effect on performance and (d) the relationship between stress and performance may represent and inverted – U . Findings suggest an inverse relationship between stress and performance.

Allen et.al (1982)[15] had endorsed the view on this inverse relationship between stress and performance. A meta-analysis by Tubre and Collins (2000) also support the negative relationship role conflict, role ambiguity and performance.

Fried et.al (1998) [16]studied the effect of role conflict, ambiguity and stress on the performance. They found a negative relationship.

Rabino witz and stumpf (1987), Sullivan and Bhagat (1992) and Beehr and Bhagat (1985) also are of the opinion that stress and performance are related to each other.

Many researchers have studied the effects of stress on performance. McGrath

(1978) [17]has reported that moderate amount of stress empowers people to perform better. Improved performance can be due to enhanced arousal. But if the stress is far greater, it will result in decreased performance and concerning health issue.

Hypothesis

    (1)   Stress level of executives in Manufacturing sector is very high as compared to Service sector.

    (2)   Male executives experienced higher level of stress than female executives in both sector.

    (3)   Higher the designation higher will be the level of stress.

Research Methodology

A. Primary Data

The primary data is collected through questionnaire method and interviews.

Data has been collected through the questionnaire method by distributing and collecting data from executives of manufacturing and service sector in Thane district.

 Before that Pre-test questionnaire (30 respondents from both the sectors) had been conducted to test its validity. After getting appropriate result questionnaire has been finalized.

B. Secondary Data

It is collected through Research papers available on Internet and other relevant articles and papers published in various business magazines like Journal of General Management, Management Today, International Journal for Human Resource Management Harvard Business Review, Journal for Industrial psychology, Human Resource Management Journal, Journal of Business Excellence, Management Review etc. Other type of written information such as company Policies, Rules, Procedure. Publication of renowned institution who works on stress management is used to support the study.

Sample

Industries taken for the analysis were from Chemical, Pharmaceutical and power station industry. And from service sector the samples were taken from Bank sector, I.T sector and Hotel industries.

SAMPLE SIZE: The sample size of 208 respondents from the said sectors were taken for the analysis on random basis. The care is taken to include Male and Female Executive in the same sample.

Limitations and Scope of The Study

The study is limited to Thane district only as researcher has considered Thane district for the said study. So conclusion drawn cannot be generalized and scope of the study is vast as such kind of studies can be replicated considering the layer grow as the said sector, contribute largely to the growth & development of the economy.

Manufacturing Industries

Statistics

Statistics		Illness score (Range 0 to 9)	Job Stress score (Range 0 to 20)
N		111	111
Mean		2.85	9.94
Std. Error of Mean		.198	.295
Median		3.00	9.00
Mode		0	9
Std. Deviation		2.090	3.111
Variance		4.367	9.678
Skewness		.158	1.538
Std. Error of Skewness		.229	.229
Kurtosis		-1.147	2.145
Std. Error of Kurtosis		.455	.455
Range		7	15
Minimum		0	5
Maximum		7	20
Percentiles	25	1.00	8.00
	50	3.00	9.00
	75	5.00	11.00

Frequency Tables

Illness score (Range 0 to 9)

Score		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	20	18.0	18.0	18.0
	1	17	15.3	15.3	33.3
	2	13	11.7	11.7	45.0
	3	17	15.3	15.3	60.4
	4	15	13.5	13.5	73.9
	5	15	13.5	13.5	87.4
	6	11	9.9	9.9	97.3
	7	3	2.7	2.7	100.0
	Total	111	100.0	100.0	

Job Stress score (Range 0 to 20)

Score		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5	1	.9	.9	.9
	6	4	3.6	3.6	4.5
	7	12	10.8	10.8	15.3
	8	23	20.7	20.7	36.0
	9	24	21.6	21.6	57.7
	10	15	13.5	13.5	71.2

11	14	12.6	12.6	83.8
12	1	.9	.9	84.7
13	4	3.6	3.6	88.3
14	2	1.8	1.8	90.1
15	1	.9	.9	91.0
16	2	1.8	1.8	92.8
17	2	1.8	1.8	94.6
18	2	1.8	1.8	96.4
19	3	2.7	2.7	99.1
20	1	.9	.9	100.0
Total	111	100.0	100.0	

Service Industries

Statistics

Statistics		Illness score (Range 0 to 9)	Job Stress score (Range 0 to 20)
N		97	97
Mean		2.46	10.78
Std. Error of Mean		.200	.361
Median		2.00	10.00
Mode		1	8
Std. Deviation		1.969	3.554
Variance		3.876	12.630
Skewness		.573	1.008
Std. Error of Skewness		.245	.245
Kurtosis		-.477	.353
Std. Error of Kurtosis		.485	.485
Range		7	14
Minimum		0	6
Maximum		7	20
Percentiles	25	1.00	8.00
	50	2.00	10.00
	75	4.00	12.00

Frequency Tables

Illness score (Range 0 to 9)

Score		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	18	18.6	18.6	18.6
	1	19	19.6	19.6	38.1
	2	16	16.5	16.5	54.6
	3	16	16.5	16.5	71.1
	4	13	13.4	13.4	84.5
	5	6	6.2	6.2	90.7
	6	5	5.2	5.2	95.9
	7	4	4.1	4.1	100.0
Total		97	100.0	100.0	

Job Stress score (Range 0 to 20)

	Score	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6	6	6.2	6.2	6.2
	7	5	5.2	5.2	11.3
	8	20	20.6	20.6	32.0
	9	14	14.4	14.4	46.4
	10	9	9.3	9.3	55.7
	11	11	11.3	11.3	67.0
	12	9	9.3	9.3	76.3
	13	6	6.2	6.2	82.5
	14	1	1.0	1.0	83.5
	15	3	3.1	3.1	86.6
	16	3	3.1	3.1	89.7
	17	3	3.1	3.1	92.8
	18	2	2.1	2.1	94.8
	19	2	2.1	2.1	96.9
	20	3	3.1	3.1	100.0
	Total	97	100.0	100.0	

T-Test

Group Statistics

	5. Type of Industries	N	Mean	Std. Deviation	Std. Error Mean
Illness score (Range 0 to 9)	Manufacturing	111	2.85	2.090	.198
	Service	97	2.46	1.969	.200
Job Stress score (Range 0 to 20)	Manufacturing	111	9.94	3.111	.295
	Service	97	10.78	3.554	.361

Independent Samples Test

	t-test for Equality of Means		
	t	Df	Sig. (2-tailed)
Illness score (Range 0 to 9)	1.354	206	.177
Job Stress score (Range 0 to 20)	-1.832	206	.068

Since t=-1.354 with P=0.034 (1-tail) which is < 0.05, there is a significant difference in the Job Stress of Manufacturing and Service employees. Service employees have a higher Stress (mean=10.78) than Manufacturing (mean=9.94).

T-Test

Group Statistics

	7. Gender	N	Mean	Std. Deviation	Std. Error Mean
Illness score (Range 0 to 9)	Male	119	2.50	2.091	.192
	Female	89	2.90	1.954	.207
Job Stress score (Range 0 to 20)	Male	119	10.66	3.366	.309
	Female	89	9.90	3.282	.348

Independent Samples Test

	t-test for Equality of Means		
	t	Df	Sig. (2-tailed)
Illness score (Range 0 to 9)	-1.414	206	.159
Job Stress score (Range 0 to 20)	1.621	206	.107

T-Test

Group Statistics

	10.Type of Family	N	Mean	Std. Deviation	Std. Error Mean
Illness score (Range 0 to 9)	Joint	73	2.55	2.173	.254
	Nuclear	135	2.73	1.967	.169
Job Stress score (Range 0 to 20)	Joint	73	11.45	4.180	.489
	Nuclear	135	9.73	2.613	.225

Independent Samples Test

	t-test for Equality of Means		
	t	Df	Sig. (2-tailed)
Illness score (Range 0 to 9)	-.625	206	.533
Job Stress score (Range 0 to 20)	3.206	103.164	.002

Types of Illness

		Count	Column N %
X13. Illness	Are you suffering from high blood pressure?	39	22.9%
	Are you suffering from indigestion?	64	37.6%
	Do you feel tired frequently?	117	68.8%
	Do you frequently visit to your doctor?	48	28.2%
	Are you suffering from diabetics?	22	12.9%
	Are you suffering from Headache/Migraine?	83	48.8%
	Are you suffering from Insomnia?	48	28.2%
	Are you suffering from Body-ache /Bach-ache?	123	72.4%
	Are you suffering from Heart-Disease?	11	6.5%
	Total	170	100.0%

Most common illnesses are 'Body-ache / Back-ache' and 'Tiredness/Fatigue'.

causes of job Stress

		Count	Column N %
X14. Job Stress	I find that on the whole my work is varied and interesting.	151	72.6%
	My department /office is adequately staffed.	94	45.2%
	If changes in work methods or equipment are under consideration I am always consulted.	53	25.5%
	Generally my work load is not too heavy.	128	61.5%
	We have a recognised procedure to follow if I have a complaint.	106	51.0%
	Generally my working conditions are good with few difficulties . over noise, heat levels or vibrations	84	40.4%

	I understand and agree with my job description.	128	61.5%
	Any good work that I do is recognised by my employer.	80	38.5%
	I am properly rewarded for the work that I do.	131	63.0%
	Most of the time I have a clear understanding of what. is expected of me in my work	95	45.7%
	I have found that I have opportunities to go on learning in my job.	125	60.1%
	I have been trained adequately for the work that I do.	110	52.9%
	I find that I can generally complete the work in the time allocated.	128	61.5%
	I do not find that there is too much pressure to get my work done.	79	38.0%
	I am rarely asked to make decisions above and beyond the level of my responsibility.	69	33.2%
	I am satisfied with the amount of responsibilities that goes with my work.	96	46.2%
	I feel that my job makes good use of my skills and competencies.	117	56.2%
	I am not asked to do things in my job that are beyond my level of competence.	99	47.6%
	I feel that I have enough control over the decisions that are made in my job.	131	63.0%
	I find that I have sufficient support for my ideas about how to do things in my job.	145	69.7%
	Total	208	100.0%

All statements are positive therefore lower percent means Job Stress.(Less than 40% are highlighted)

Oneway ANOVA Significant differences are marked in yellow. In Job Stress lower score means more stress.

Descriptives

		N	Mean	Std. Deviation	Std. Error
Illness score (Range 0 to 9)	Senior Executive	88	3.24	2.155	.230
	Junior Executive	117	2.24	1.851	.171
	Any Other	3	2.67	2.082	1.202
	Total	208	2.67	2.038	.141
Job Stress score (Range 0 to 20)	Senior Executive	88	10.77	3.304	.352
	Junior Executive	117	10.00	3.391	.314
	Any Other	3	10.33	.577	.333
	Total	208	10.33	3.344	.232

There is a significant difference in the mean illness scores of Senior (mean=3.24) and Junior (mean=2.24) Executives (P=0.002).

Senior Executives have higher illness score than Junior Executives.

As far as Job Stress is concerned there is no significant difference in the mean Job Stress of Junior and Senior Executives (P=0.263).

ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Illness score (Range 0 to 9)	Between Groups	50.156	2	25.078	6.347	.002
	Within Groups	809.954	205	3.951		
	Total	860.111	207			

Job Stress score (Range 0 to 20)	Between Groups	29.989	2	14.995	1.346	.263
	Within Groups	2284.121	205	11.142		
	Total	2314.111	207			

Post Hoc Tests

Multiple Comparisons

Scheffe

Dependent Variable	(I) 2. Designation	(J) 2. Designation	Mean Difference (I-J)	Std. Error	Sig.
Illness score	Senior Executive (Range 0 to 9)	Junior Executive	.999*	.280	.002
		Any Other	.572	1.167	.887
	Junior Executive	Senior Executive	-.999*	.280	.002
		Any Other	-.427	1.162	.935
	Any Other	Senior Executive	-.572	1.167	.887
		Junior Executive	.427	1.162	.935
Job Stress score	Senior Executive (Range 0 to 20)	Junior Executive	.773	.471	.263
		Any Other	.439	1.960	.975
	Junior Executive	Senior Executive	-.773	.471	.263
		Any Other	-.333	1.952	.986
	Any Other	Senior Executive	-.439	1.960	.975
		Junior Executive	.333	1.952	.986

* The mean difference is significant at the 0.05 level.

Homogeneous Subsets

Illness score (Range 0 to 9)

Scheffe

2. Designation	N	Subset for alpha = 0.05
		1
Junior Executive	117	2.24
Any Other	3	2.67
Senior Executive	88	3.24
Sig.		.586

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 8.493.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Job Stress score (Range 0 to 20)

Scheffe

2. Designation	N	Subset for alpha = 0.05
		1
Junior Executive	117	10.00
Any Other	3	10.33
Senior Executive	88	10.77
Sig.		.893

Means for groups in homogeneous subsets are displayed.

  a. Uses Harmonic Mean Sample Size = 8.493.

  b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

oneway ANOVA
Descriptives

		N	Mean	Std. Deviation	Std. Error
Illness score (Range 0 to 9)	1.5 - 3 Lakhs	30	2.00	1.576	.288
	3 - 5	57	1.61	1.623	.215
	5 - 10	91	2.88	1.943	.204
	10 - 25	30	4.70	1.822	.333
	Total	208	2.67	2.038	.141
Job Stress score (Range 0 to 20)	1.5 - 3 Lakhs	30	11.73	4.076	.744
	3 - 5	57	9.54	3.129	.414
	5 - 10	91	10.58	3.439	.360
	10 - 25	30	9.67	1.918	.350
	Total	208	10.33	3.344	.232

ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Illness score (Range 0 to 9)	Between Groups	204.631	3	68.210	21.229	.000
	Within Groups	655.479	204	3.213		
	Total	860.111	207			
Job Stress score (Range 0 to 20)	Between Groups	113.305	3	37.768	3.501	.016
	Within Groups	2200.806	204	10.788		
	Total	2314.111	207			

Post Hoc Tests

Multiple Comparisons
Scheffe

Dependent Variable	(I) 3. Income level (P.A.)	(J) 3. Income level (P.A.)	Mean Difference (I-J)	Std. Error Sig.	
Illness score (Range 0 to 9)	1.5 - 3 Lakhs	3 – 5	.386	.404	.823
	5 – 10	-.879	.377	.147	.000
	10 – 25	-2.700*	.463	3 - 5	
	1.5 - 3 Lakhs	-.386	.404	.823	
	10	-1.265*	.303	.001	
	10 – 25	-3.086*	.404	.000	
	5 - 10	1.5 - 3 Lakhs	.879	.377	147
	3 – 5	1.265*	.303	.001	
	10 – 25	-1.821*	.377	.000	
	10 - 25	1.5 - 3 Lakhs	2.700*	.463	.000

	3 – 5	3.086*	.404	.000	
		5 – 10	1.821*	.377	.000
Job Stress score (Range 0 to 20)	1.5 - 3 Lakhs	3 – 5	2.189*	.741	.036
	5 – 10	1.151	.691	.430
		10 – 25	2.067	.848	.118
	3 - 5	1.5 - 3 Lakhs	-2.189*	.741	.036
		5 – 10	-1.039	.555	.323
		10 – 25	-.123	.741	.999
	5 - 10	1.5 - 3 Lakhs	-1.151	.691	.430
		3 – 5	1.039	.555	.323
		10 – 25	.916	.691	.626
	10 - 25	1.5 - 3 Lakhs	-2.067	.848	.118
		3 – 5	.123	.741	.999
		5 – 10	-.916	.691	.626

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

Illness score (Range 0 to 9)

Scheffe

3. Income level (P.A.)	N		Subset for alpha = 0.05	
		1	2	3
3 - 5	57	1.61		
1.5 - 3 Lakhs	30	2.00	2.00	
5 - 10	91		2.88	
10 - 25	30			4.70
Sig.		.808	.172	1.000

Means for groups in homogeneous subsets are displayed.

   a.   Uses Harmonic Mean Sample Size = 42.017.

   b.   The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Job Stress score (Range 0 to 20)

Scheffe

3. Income level (P.A.)	N	Subset for alpha = 0.05	
		1	2
3 - 5	57	9.54	
10 - 25	30	9.67	
5 - 10	91	10.58	10.58
1.5 - 3 Lakhs	30		11.73
Sig.		.553	.463

Means for groups in homogeneous subsets are displayed.

   a.   Uses Harmonic Mean Sample Size = 42.017.

   b.   The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Oneway ANOVA

Warnings

Post hoc tests are not performed for Illness score (Range 0 to 9) because there are fewer than three groups.
Post hoc tests are not performed for Job Stress score (Range 0 to 20) because there are fewer than three groups.Descriptives

		N	Mean	Std. Deviation	Std. Error
Illness score (Range 0 to 9)	Graduate	124	2.09	1.934	.174
	Post Graduate	84	3.52	1.891	.206
	Total	208	2.67	2.038	.141
Job Stress score (Range 0 to 20)	Graduate	124	10.77	3.731	.335
	Post Graduate	84	9.69	2.560	.279
	Total	208	10.33	3.344	.232

ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Illness score (Range 0 to 9)	Between Groups	103.134	1	103.134	28.066	.000
	Within Groups	756.977	206	3.675		
	Total	860.111	207			
Job Stress score (Range 0 to 20)	Between Groups	57.940	1	57.940	5.290	.022
	Within Groups	2256.170	206	10.952		
	Total	2314.111	207			

Oneway ANOVA

Descriptives

		N	Mean	Std. Deviation	Std. Error
Illness score (Range 0 to 9)	Less than 5 years	50	1.50	1.568	.222
	Less than 10 years	61	2.07	1.711	.219
	Less than 20 years	55	3.33	1.856	.250
	More than 20 years	42	4.07	2.100	.324
	Total	208	2.67	2.038	.141
Job Stress score (Range 0 to 20)	Less than 5 years	50	11.00	3.870	.547
	Less than 10 years	61	9.80	3.156	.404
	Less than 20 years	55	10.20	2.996	.404
	More than 20 years	42	10.48	3.337	.515
	Total	208	10.33	3.344	.232

ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.	
Illness score (Range 0 to 9)	Between Groups	196.978	3	65.659	20.199	.000	
	Within Groups	663.133	204	3.251			
	Total	860.111	207				
Job Stress score (Range 0 to 20)	Between Groups	41.195	3	13.732	1.232	.299	
	Within Groups	2272.916	204	11.142			
	Total	2314.111	207				

Post Hoc Tests

Multiple Comparisons

Scheffe

Dependent Variable	(I) 6. Experience	(J) 6. Experience	Mean Difference (I-J)	Std. Error	Sig.
Illness score (Range 0 to 9)	Less than 5 years	Less than 10 years	-.566	.344	.441
		Less than 20 years	-1.827*	.352	.000
		More than 20 years	-2.571*	.377	.000
	Less than 10 years	Less than 5 years	.566	.344	.441
		Less than 20 years	-1.262*	.335	.003
		More than 20 years	-2.006*	.362	.000
	Less than 20 years	Less than 5 years	1.827*	.352	.000
		Less than 10 years	1.262*	.335	.003
		More than 20 years	-.744	.369	.259
	More than 20 years	Less than 5 years	2.571*	.377	.000
		Less than 10 years	2.006*	.362	.000
		Less than 20 years	.744	.369	.259
Job Stress score (Range 0 to 20)	Less than 5 years	Less than 10 years	1.197	.637	.319
		Less than 20 years	.800	.652	.682
		More than 20 years	.524	.699	.905
	Less than 10 years	Less than 5 years	-1.197	.637	.319
		Less than 20 years	-.397	.621	.938
		More than 20 years	-.673	.669	.799
	Less than 20 years	Less than 5 years	-.800	.652	.682
		Less than 10 years	.397	.621	.938
		More than 20 years	-.276	.684	.983
	More than 20 years	Less than 5 years	-.524	.699	.905
		Less than 10 years	.673	.669	.799
		Less than 20 years	.276	.684	.983

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

Illness score (Range 0 to 9)
Scheffe

6. Experience	N	Subset for alpha = 0.05	
		1	2
Less than 5 years	50	1.50	
Less than 10 years	61	2.07	
Less than 20 years	55		3.33
More than 20 years	42		4.07
Sig.		.475	.230

Means for groups in homogeneous subsets are displayed.

    a.   Uses Harmonic Mean Sample Size = 51.030.

    b.   The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Job Stress score (Range 0 to 20)
Scheffe

6. Experience	N	Subset for alpha = 0.05
		1
Less than 10 years	61	9.80
Less than 20 years	55	10.20
More than 20 years	42	10.48
Less than 5 years	50	11.00
Sig.		.353

Means for groups in homogeneous subsets are displayed.

    a.   Uses Harmonic Mean Sample Size = 51.030.

    b.   The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Oneway ANOVA

Descriptives

		N	Mean	Std. Deviation	Std. Error
Illness score (Range 0 to 9)	Married	108	2.94	2.011	.193
	Unmarried	79	1.95	1.846	.208
	Divorced	21	4.00	1.949	.425
	Total	208	2.67	2.038	.141
Job Stress score (Range 0 to 20)	Married	108	10.96	3.681	.354
	Unmarried	79	9.96	3.002	.338
	Divorced	21	8.48	1.327	.290
	Total	208	10.33	3.344	.232

ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Illness score (Range 0 to 9)	Between Groups	85.767	2	42.883	11.353	.000
	Within Groups	774.344	205	3.777		

	Total	860.111	207			
Job Stress score	Between Groups (Range 0 to 20)	126.135	2	63.067	5.909	.003
	Within Groups	2187.976	205	10.673		
	Total	2314.111	207			

Post Hoc Tests

Multiple Comparisons

Scheffe

Dependent Variable	(I) 8. Marital status	(J) 8. Marital status	Mean Difference (I-J)	Std. Error	Sig.
Illness score (Range 0 to 9)	Married	Unmarried	.986*	.288	.003
		Divorced	-1.065	.464	.074
	Unmarried	Married	-.986*	.288	.003
		Divorced	-2.051*	.477	.000
	Divorced	Married	1.065	.464	.074
		Unmarried	2.051*	.477	.000
Job Stress score (Range 0 to 20)	Married	Unmarried	1.001	.484	.120
		Divorced	2.487*	.779	.007
	Unmarried	Married	-1.001	.484	.120
		Divorced	1.486	.802	.182
	Divorced	Married	-2.487*	.779	.007
		Unmarried	-1.486	.802	.182

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

Illness score (Range 0 to 9)

Scheffe

8. Marital status	N	Subset for alpha = 0.05	
		1	2
Unmarried	79	1.95	
Married	108	2.94	
Divorced	21		4.00
Sig.		.065	1.000

Means for groups in homogeneous subsets are displayed.

    a. Uses Harmonic Mean Sample Size = 43.143.

    b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Job Stress score (Range 0 to 20)

Scheffe

8. Marital status	N	Subset for alpha = 0.05	
		1	2
Divorced	21	8.48	
Unmarried	79	9.96	9.96
Married	108		10.96
Sig.		.110	.365

Means for groups in homogeneous subsets are displayed.

    a.   Uses Harmonic Mean Sample Size = 43.143.

    b.   The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Oneway ANOVA

Descriptives

		N	Mean	Std. Deviatio	Std. Error
Illness score (Range 0 to 9)	Urban	92	2.29	1.813	.189
	Semi-urban	85	3.12	2.067	.224
	Rural	31	2.55	2.392	.430
	Total	208	2.67	2.038	.141
Job Stress score (Range 0 to 20)	Urban	92	10.34	3.443	.359
	Semi-urban	85	10.22	3.080	.334
	Rural	31	10.61	3.809	.684
	Total	208	10.33	3.344	.232

ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Illness score (Range 0 to 9)	Between Groups	30.534	2	15.267	3.773	.025
	Within Groups	829.577	205	4.047		
	Total	860.111	207			
Job Stress score (Range 0 to 20)	Between Groups	3.448	2	1.724	.153	.858
	Within Groups	2310.662	205	11.272		
	Total	2314.111	207			

Post Hoc Tests

Multiple Comparisons

Scheffe

Dependent Variable	(I) 11. Residential	(J) 11. Residential background	Mean background	Std. Error Difference (I-J)	Sig.
Illness score (Range 0 to 9)	Urban	Semi-urban	-.824*	.303	.026
		Rural	-.255	.418	.830
	Semi-urban	Urban	.824*	.303	.026
		Rural	.569	.422	.404

	Rural	Urban	.255	.418	.830
		Semi-urban	-.569	.422	.404
Job Stress score (Range 0 to 20)	Urban	Semi-urban	.113	.505	.975
		Rural	-.276	.697	.925
	Semi-urban	Urban	-.113	.505	.975
		Rural	-.389	.704	.858
	Rural	Urban	.276	.697	.925
		Semi-urban	.389	.704	.858

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

Illness score (Range 0 to 9)

Scheffe

11. Residential background	N	Subset for alpha = 0.05
		1
Urban	92	2.29
Rural	31	2.55
Semi-urban	85	3.12
Sig.		.104

Means for groups in homogeneous subsets are displayed.

   a.   Uses Harmonic Mean Sample Size = 54.652.

   b.   The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Job Stress score (Range 0 to 20)

Scheffe

11. Residential background	N	Subset for alpha = 0.05
		1
Semi-urban	85	10.22
Urban	92	10.34
Rural	31	10.61
Sig.		.832

Means for groups in homogeneous subsets are displayed.

   a.   Uses Harmonic Mean Sample Size = 54.652.

   b.   The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Conclusion

There is a significant difference in the job stress of Manufacturing and Service employees. Service employees have a (mean10.78) higher stress than Manufacturing (mean9.94).

Hence the Hypothesis 'Stress level of executives in Manufacturing sector is very high as compared to Service sector.' is not validated.

So it can be concluded from the analysis of the study that even though both are the largest sectors but their employees stress levels are not same. Hence the null hypothesis is rejected and alternative hypothesis is accepted.

Thus it is concluded that although stress exist in both the sectors but higher level of stress is observed in service sector, this may be due to the fact that executives working in Service sector are ambitious so ultimately leads to higher level of stress in them.

It is also seen that the stress level of male executives are higher than the female executives, this may be due to the fact that the male do not share their feelings frequently with the family and friends when ultimately leads to higher stress

level in them. Further it is also seen in the analysis that the same level of stress is experienced by lower & higher level of executives, this may be due to the fear that job expectations are now a days higher at all the levels due to cut throat competitions in the market.

Thus researcher feels that as the executive in both the sector is experiencing much more stress and also the life style and other factors leads in higher stress in executive. Thus considering the above facts management must take step and initiative some stress releasing measures for the executive in such important sector which contribute highly towards the growth & development to the country.

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Role of E-Governance in Rural and Urban Development of India

Babasaheb D. Patil* & Prof. Dr. R.V.Kulkarni**

Abstract

Information and Communication Technologies (ICTs) plays a key role in development and economic growth of Rural and Urban Local Self Government (LSG) in India. Social, economical, political and behavioral decisions today depends on the ability to access, gather, analyze and utilize information and knowledge. ICT is the digital medium that providesvarious government services, information and knowledge to citizen or individual to widen their choices for economic and social empowerment. In near future people will be carrying a handheld computer connected to the web to get the information about the world at their fingertips. State and central government of India is having striving objective of transforming the citizen-government interaction at all levels by the digital mode (e-Governance) by 2020.A successful ICT application in e-Governance giving one-stop solutions for rural as well as urban community is the need of the hour. ICT is molded to enable the electronic governance through ICT, thus it's integrally interlinked and knitted.India is a country of villages and to improve and sustain the overall prosperity, growth and development in the global competitive era, National E-governance plan (NEGP) seeks to lay the foundation with various projects, starting from the grass-root levels, and provide forward motion for long-term e-governance within the country. In this direction rural e-Governance applications implemented in the recent few years have been signifying the importance of ICT in the concerned areas of rural development. In reality, some of the projects introduced in rural India have improved the government services enormously. This paper highlights various initiatives taken by government for egovernance implementation like SETU, SARITA, PRIASOFT, KMC eGov project etc. This paper also highlights need of assessment of these project for functionality of projects, citizen centric services, service delivery mechanisms , selection of appropriate (dependable, maintainable, cost effective) technologies for rural connectivity and information processing solutions, cost effective delivery stations (kiosks) to build new services, demonstration of transparency and efficiency to remove distrust and build confidence among the citizens on functioning of service delivery mechanisms .

***Keywords**- ICT, Egovernance, NEGP, Kiosk, LSG*

Introduction

The term e-governance focuses on the use of new ICTs by governments as applied to the full range of government functions. Thus e-governance is the application of information and communication technology for delivering government services, exchange of information, communication, transactions, integration, various stand-alone systems, and services between government and citizens, government and business as well as back office processes and interactions within the entire government frame work. The government being the service provider it is important to motivate the egovernance service providers for delivering the services through ICT. E-governance seeks to achieve efficiency, transparency, and citizen's participation. Enabling E-governance through ICT contributes to good governance, trust and accountability, citizen's awareness, empowerment, citizen's welfare, democracy and nation's economic growth. ICT is the biggest enabler of change and process reforms fade in face of what ICT has achieved in few years.E-governance services through ICT refer to transactional services that involve local self government LSG (rural and urban), state or central government. eGovernance acts in speeding up the flow of various services offered by government, information and knowledge between government and citizens and transforming the way in which governments and citizens interact. According to the United Nations Development Program (UNDP) the challenge for all countries is to create and develop a system of governance that promotes supports and sustains human development. Governments in many parts of the country have made huge ICT investments aimed at improving governance processes.In the present century, the advancements in Information and Communication Technologies (ICTs) are changing the various components of human life. The changes in the ICTs have brought a positive impact in the process of public service delivery and socio-economic structure of communities.In India, e-Governance applications in the recent past have demonstrated their positive impact in minimizing the processing

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costs, increase transparency and support economic development by getting faster and services from local, state and central government, income generating ventures, increase in agricultural production, and improvements in health and education sectors, all of which promote the overall quality of life of rural as well urban people. eGovernance contributes in providing the transactional services for the rural people with the benefit of time and cost savings in obtaining the public services with efficiency and effectiveness and it also examines changes in agricultural productivity and improved quality of life due to the egovernance.

The rural ICT applications attempt to offer the services of central agencies (like local self government,district administration, cooperative union, state and central government departments) to the citizens at their village door steps. These applications utilize the ICT in offering improved and affordable connectivity and processing solutions. Several Government-Citizen (G-C) e-Government pilot projects have attempted to adopt these technologies to improve the reach, enhance the base, minimize the processing costs, increase transparency, and reduce the cycle times of service transaction.A large number of rural E-government applications, developed as pilot projects, were aimed at offering easy access to citizen services and improved processing of government-to-citizen transactions. The idea that the primary and the absolute object of ICT in e-governance and rural development is individual's motivation to collective mobilization for an integrated rural as well as urban development.

Various eGovernance Projects

The state government has undertaken several e-governance initiatives to enhance the adoption of Information Technology in day-to-day functioning. The following initiatives are of special significance.

e-Governance Initiatives in Maharashtra -

    i. SETU - SETU (Integrated Citizen Facilitation Centers)

      SETU has started with aim to provide greater transparency, accessibility and efficiency to government procedures. Indirect employment generation is also another goal.SETU or the citizen facilitation centers act as a one-stop service centre for people who have to visit government offices for certificates, permits, authentication, affidavits and other services. SETU Society manages SETU centers.SETU Society is a Society promotion of excellence and transparency in public administration for better understanding of the requirements of the citizens in their interface with government. Integrated citizen service centers SETU has been established in all districts headquarters. At this stage these centers are providing the entire collector office related facilities. The most important and frequently issued certificates are the ones related to domicile, nationality, caste, age verification, solvency, character verification, income and occupation.URLwww.setu.maharashtra.gov.in

    ii. e-Panchayat was conceived as a Mission Mode Project (MMP) –

      Objectives: e-Panchayat was conceived as a Mission Mode Project (MMP) under NeGP with the primary objective of introducing and institutionalizing eGovernance in Panchayats. The primary aim was to transform Panchayats into eûcient units and to strengthen their business functions and processes with the ultimate goal of ensuring elective local area development and prompt and eûcient service delivery to common man.The e-Panchayat project holds great promise for the rural masses as it aims to transform the Panchayati Raj Institutions (PRIs) into symbols of modernity, transparency and efficiency. This is a one of its kind nationwide IT initiative introduced by Ministry of Panchayati Raj that endeavors to ensure people's participation in programme decision making, implementation and delivery. The project addresses all aspects of Panchayats' functioning including planning, monitoring, implementation, budgeting, accounting, social audit and delivery of citizen services like issue of certificates, licenses etc.

Key Objectives of e-Panchayat Mission Mode Project are to Use ICT for
- Automation of internal workflow processes of Panchayats
- Improving delivery of services to citizens
- Capacity building of Panchayat Representatives and Officials
- Social Audit
- Transparency, Accountability, Efficiency and RTI compliance of Panchayats
- Improving Governance of local self-government.

Components of e-Panchayat
- Information & Service Need Assessment
- Business Process Re-engineering
- Computing Infrastructure

- Connectivity
- Capacity Building
- Content Management
- Programme & Project Management

Service Improvement: 135 Panchayats in 45 districts in 34 States/UTs were studied.Panchayat Raj Institution Accounting Software (PRIASoft) is cash based double entry accounting system. There are more than 1.6 lakh Panchayat working on this platform. Over 1.2 Lakh Panchayats made online voucher entries in from 2011 onwards. Government of India has estimated to provide high bandwidth connectivity to all Panchayats by 2014 with National Optic Fibre Network (NOFN). Under this project, Panchayat Enterprise Suite (PES) has been conceptualized which comprises 11 Core Common application.Under e-Panchayat MMP, 11 Core Common applications are envisaged that address all aspects of Panchayats' functioning viz. from internal core functions such as Planning, Monitoring, Implementation, Budgeting, Accounting, Social Audit, etc to citizen service delivery like issue of certificates, license. URL- http://panchayatonline.gov.in/

   iii. Citizen Facilitation Centers (CFC) of Kolhapur Municipal Corporation (KMC)

      KMC, a G2C-U project, has an aim to create an e-Governed Municipal Corporation of 21st Century and develop a system to drive Municipal Corporation with the highest levels of Transparency, Accountability and Citizen Servicing Standards. This project serves variouscitizens and offers the services to citizens of Kolhapur Municipal Corporation through Citizen Facilitation Centers and putting them online.

Project Objectives

- Key Objectives is to provide egovernance solution for Municipalities:
- Provide Single Window services to citizens on anytime,anywhere basis
- Increase the efficiency and productivity of ULBs
- Develop a single and integrated view of ULB information system across all ULBs
- Provide timely & reliable MIS relating to municipal administration for effective decision making.
- Adopt a standards-based approach to enable integration with other related applications
- Introduce transparency and accountability for all government functions
- Provide a centralized interface for all citizen-related transactions
- Provide a decision support system for top management
- Improve efficiency and productivity in providing citizen services

Online Services Offered

Table 1 Services offered

Queries	e-Payment
Applications Status	Tender & Notices
Food Licenses Status	Requisitions
Property Dues	Assessment Department
Water Dues	City Engineer
Requisitions	Food License Department
Birth Certificate	Garden & Tree Plantation
Death Certificate	Health Department
Online Payment	Market License Department
Town Planning	

   iv. SARITA (Stamps & Registration Information Technology basedAdministration)

      SARITA is a G2C-U project with an aim to design, develop, and implement a computerized application for registration of documents, received at each Sub-Registrar Office and provide data updation on timely basis to their respective Joint District Registrars and higher offices under the purview of department of Registration, Pune, Maharashtra State. The project runs on PPP model and covers entire state of Maharashtra covering 405 Sub Registrar Offices, 35 District offices, 8 Divisional offices and 1 Head Quarter in Pune.

Project objectives

- Complete the computerization of existing registration process.
- Automatic generation of property value on the basis of predefined template Ready Reckoner Creation.
- Adjudication.
- Generation of receipt and pending list.
- Issuing notices to parties.
- Scanning of registered documents and a secured document archival technique with backup facility.
- Generation of all types of reports (periodical, miscellaneous) at all levels in the department's hierarchy.
- Maintaining a master database of all villages in the jurisdiction of the office.
- Presenting higher authorities with a consolidated picture.
- Quick services to the citizens relating to search reports, registration and certified copies of registered documents etc.
- Remote access to Web enabled InfoBase for citizens.

Services Offered

Registration of different types of documents as mandated by the Government.

Comprehensive software simultaneously deployed at 360 sites networked.

Document is registered with all relevant parameters and delivered in less than 30 minutes assured to the public.

Error free registration with on-line monitoring and document encryption with photograph and thumb impression of seller, buyer, and consenter.

Product in a shrink-wrapped form for easy replication and administration at sites.

Registration-valuation, scan-archive, network and process monitoring modules integration.

User interface in Marathi.

For Government - Helped in increasing document registration from average 16 to 40 per day and consequent 10-15% increase in revenue without any capital investment

For Industry   - Build - Operate - Transfer (BOT) mechanism permitted eight private industries to participate in investing and running operations at IGR sites using their computing infrastructure on a cost-sharing basis

For Public - Drastically reduce time for registration from several days/week to an assured 30 minutes with penalties for delay and reduce subjectivity on part of Government officials and reduce hassles in a conventional registration

3. Visualization of eServices through Electronic Transaction Aggregation & Analysis Layer (eTaal)

It provides an aggregated view of e-Transactions performed through e-Governance applications implemented including, but not limited to, the national-level mission mode projects (MMPs) under the National e-Governance Plan (NeGP). The dashboard also facilitates quick analysis of data of various applications in tabular as well as graphical form enabling users to drill down to the lowest level of detail without compromising security and integrity of the servers from where data has been captured. eTaal portal provides the e-Transactions count of e-Services delivered to the citizens across the country. eTaal has a nationwide acceptability as data is being captured for approx. 3325 e-Services from 21 Central Ministries, 36 States/UTs and 21 Mission Mode Projects (MMPs).Around 2832 crore transactions have been recorded so far since the inception of the projectin 2013. URL-http://etaal.gov.in .

Fig1 . National e-Transaction Count for year 2017

4. Need of eGovernance Project Assessment-

Various projects that have been providing excellent services and saving time and money of people as well as of government and are contributing their might to the socio-economic development of rural India.

Assessing Impact and Outcome -India's increased participation in the global Information and Communication Technology market and the government's pro-active policies in promoting investment in ICT and eGovernance at home, there is a need to track the progress and achievements in this field in different LSG ,states and central government. The focus of this paper is to evaluate the ability of Local Self Government , State Governments, Central Government to pursue value creation opportunities and accompanying inclusive economic development, facilitated by ICT to rural and urban citizens.

Framework of Assessment of egovernance projects-

- The ICT environment of a given state or community.
- The readiness of the community's key stakeholders to use ICT.
- Capacity Building – Through various CB Schemes, training programs, announcements etc
- Awareness and communication- Through Mass media, Social Media, Workshops, seminars and Events etc.
- The actual usage of ICT among these stakeholders.

It is need of hour that a sound environment needs to be put in place at initial stage for effective use of ICT. This environment would include policy environment, market environment and infrastructural environment. Readiness deals with those characteristics of the players that enable them to respond to an environment that is enabling. This includes capacity building or skill formation within the different stakeholders as well as their access to the infrastructure which may have been put in place either by the public or the private sector. Usage, on the other hand, is the actual utilization of information technology given a conducive environment and positive state of readiness.Given the focus on eGovernance in India, an eGovernance Index was also included in the eReadiness Assessment Framework for the first time in 2008. It was done because it was felt that eGovernance is of relevance because of its direct relationship with government investments on the one hand and its importance in facilitating provision of services by the Government to both industry and general citizens, on the other.

Being ICT a significant instrument in E-Governance and Rural as well as Urban development , appropriate infrastructure/ design is mandatory for proper functioning as follows:-

- As designed of citizen centric services, and dependable service delivery mechanisms.
- Selection of appropriate (dependable, maintainable, cost effective) technologies for rural connectivity, and information processing solutions.
- As designed of cost effective delivery stations (kiosks) to build new services.
- Demonstration of transparency and efficiency to remove distrust and build confidence among the citizens on functioning of service delivery mechanisms.
- Invite private participation to reduce the burden on the central servicing agency, bring in the expertise, enhance the speed of implementation, and offer better value proposition to the citizens.

Conclusion

The use of ICT tools help in strengthening social transformation, empowerment and participation, as well as fostering productive processes at the local level through the provision of employment and skills, as well as support services for micro-enterprise activities. Fast growth of digital transactions reflects a positive impact on society. In rural and urban communities with limited capacities and resources to respond to the effects of egovernance, it is necessary to assess impact of egovernance projects.

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Conceptualizing the Framework for Service Value Co-Creation Through Crowdsourcing

Dr. Tejas R. Shah*

Abstract

The involvement of customers as co-creators in service innovation is increasingly being suggested as a successful strategy to improve the success rate of new services. Value-in-use is a central theme for the service-dominant logic because the customer is always a co-creator of value. Co-creation involves customer engagement in the creation of offerings through ideation, design and development. Today, businesses increasingly exploit collective wisdom and efficient cost control. Crowdsourcing allows companies to gain collective intelligence among people with different backgrounds, knowledge in diversified professional fields and expertise. The internet crowdsourcing platform demonstrates the benefit of collective wisdom for innovative ideas development. Gathering crowd wisdom on a platform facilitates the articulation of one innovative idea being mapped or associated with other innovative ideas. It leads to one or more innovative solutions to an organization problem and this approach can aggregate the power of innovation for problem solving. The basic objective of this paper is to conceptualize service innovation through crowdsourcing. A detailed literature review is conducted to understand the framework of service value co-creation, crowd sourcing practices and linkage between service value co-creation and crowdsourcing.

Keywords: *value, co-creation, service innovation, co-creation experience, customer, Crowdsourcing*

Paper Category: *Conceptual*

Track: *Sectorial Transformation through Digitization*

Introduction

In today's era, firms have to continuously reinvent themselves in order to adapt to complex and dynamic market realities. Innovation in services is viewed as any change that affects one or more terms of one or more service characteristics (Gallouj and Weinstein, 1997). (Gallouj and Savona, 2011) mentioned six modes of innovation can be identified: radical innovation, improvement innovation, incremental innovation, ad hoc innovation, recombinative innovation, and formalization innovation. Firms need to re-assess their business model in order to become more responsive to consumer needs and demands in era of personalization (Roser et al., 2013). Wittel et al. (2011) mentioned that companies must engage in an interactive dialog with customers to meet the demands of mass customization and innovation. Value creation increasingly takes place through networks and becomes less dependent on a firm's (intended) value proposition alone (Prahalad and Ramaswamy, 2004). Michel et al. (2008) defined a change in the role of the customer and the value-creation processes. Edvardsson and Tronvoll (2013) mentioned that the customer co-creates and determines the value of service innovation, while the firm becomes catalyst/facilitator through which value creation can be enabled, shaped and accelerated (Grace and Lacono, 2015). The importance of developing service delivery systems that enable and enhance the process of co-creating value has progressively increased for organizational success (Flores and Vasquez-Parraga, 2015).

The service-dominant logic implies that the customer is always a co-creator of value (Vargo and Lusch, 2004). They further claimed that customers are always co-creators of value. Value Co-creation has become a key concept within service marketing and business management (Saarijärvi et al., 2013). Value-in-use is a central theme for the service-dominant logic and is in contrast to the traditional goods-dominant logic, which views value as something that can be created beforehand, during production (Sjodin and Kristensson, 2012). The customers play an active role as co-producer (Dong, 2015). The involvement of customers as co-creators in new service innovation is increasingly successful (Sjodin and Kristensson, 2012). The customer participation and experience with the service are crucial for value creation (Pinho et al., 2014). Verley (2015) explained that co-creation involves customer engagement in the creation of offerings through ideation, design and development.

Practices / Process

Motivation

Experience

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Technology is often seen as facilitating value co-creation process (Saarijärvi et al., 2013). Modern technology has a crucial role in supporting the transformation of the manner in which organizations and consumers interact (Flores and Vasquez-Parraga, 2015). Crowdsourcing is related to open innovation. Marjanovic et al. (2012) state that firms are interested in crowdsourcing models since customers are motivated to contribute with creative ideas in a freeway. Several researchers have signified and confirmed the pace of co-creation due to increase use of technology in form of crowdsourcing (Wexler, 2011; Duveerger, 2015 and Xu et al., 2015). Chesbrough (2006) described that Co-creation has emerged due to the growth of social, collaboration and customization technologies.

The above discussion leads to following research questions:

 RQ1:   How does crowdsourcing lead to service value co-creation?

 RQ2:   What are the important aspects of value co-creation through crowdsourcing?

Conceptual Framework

Previous studies show the strong interrelationships among motivation, practices and experiences of customer value co-creation process. Füller (2010) explained the positive impact of intrinsic and extrinsic motivation for customer value co-creation on customer engagement/participation, Also, customers' motivation differ in different service context that leads to different level of customer participation in co-creation process. So, it is important to understand the relationship between motivation for customer value co-creation and practices thein. The customer's involvement in the value co-creation processes is getting highly affected by their assessment of value co-creation process adopted by the firm (Verleye, 2015). It means robust value co-creation process leads to generate superior customer co-creation experience. So, it becomes imperative to understand the nature of relationship between customer value co-creation practices and value co-creation experience.

Figure 1: Framework for Service Value Co-creation through Crowdsourcing

Literature Review

Co-Creation

A large amount of literature is available and signifies the importance of customer value co-creation in today's competitive era. Approaches to value co-creation are shifting towards customer value chain involvement during value creation (Roser et al., 2013). Recently service-dominant logic is gaining importance over traditional goods-dominant logic (Xie et al., 2008). A service-dominant focuses customer's problem and identifies products and services that can solve these problems (Sawhney, 2006). Value-in-use is a central theme for the service-dominant logic because the customer is always a co-creator of value (Vargo and Lusch, 2004; Lusch and Vargo, 2006). Value-in-use implies that value is determined by customer during consumption process through use and creating core market offerings through customer participation. Value-in-use can occur collaboration with customers and other partners through shared inventiveness, co-design or the shared production of related goods. Saarijärvi et al. (2013) defined presumption as customers' active participation in service creation. Kristensson et al. (2008) argued that customers are a source of creative ideas that can be worthwhile for innovation. Service providers have engaged customers in their development work in order to enhance the innovativeness of their offerings and deepen their relationships with key customers. The importance of both of these results has been well documented (Henard and Szymanski, 2001; Kristensson et al., 2004).

Different researchers define the meaning of co-creation differently. Different researchers have defined co-creation in different terms like service-dominant logic (Vergo and Lusch, 2004), co-operative experimental system development Gronbaek et al. (2007), prosumption (Wittel et al., 2011), participation and open source (Ind and Coates, 2013) and crowdsourcing (Wexler, 2011; Duverger, 2015 and Xu et al., 2015). Wittel et al. (2011) defined value co-creation in terms of innovation as creating new quickly and relevant to bring to market with customers' participation. Ind and Coates (2013) defined co-creation as a shift in thinking from the organization as a definer of value to a more participative process where customers and organizations together generate and develop meaning. They further mentioned co-creation as an active, creative, and social process based on collaboration between organizations and participants that generates benefits for all and creates value for stakeholders. According to Saarijärvi et al. (2013), Co-

creation refers to the process of developing value-in-use by integrating different resources from different actors in order to actualize their value potential. Oyner and Korelina (2016) defined co-creation as an interactive, creative and social

process between stakeholders that is initiated by the firm at different stages of the value creation process to generate value for the firm and the customer.

Motivation for Value Co-Creation

Literature suggests that for a service firm, customer motivation is significant for customer value co-creation process. A large amount of research in social and organizational psychology studies proved that higher extrinsic and intrinsic motivation significantly encourage individuals to engage in certain actions with higher anticipated or potential benefit. Self Determination Theory suggests the importance of intrinsic and extrinsic sources of motivation (Ryan and Deci, 2000). Earlier, Bharti et al. (2014) also put emphasis on motivation as drivers of consumer value co-creation. Pinho et al. (2014) defined customers' motivation for value creation in terms of intrinsic and extrinsic motivation. Kao et al. (2016) mentioned the importance of motivation for co-creation. The concept of intrinsic motivation is fundamental to cognitive and social development and constitutes a source of enjoyment throughout the life (Engstrom and Elg, 2015). A central facet of any extrinsic motivation is instrumentality, i.e., the individual's behavior is regulated from outside (Engstrom and Elg, 2015). Extrinsic need motivates an individual to achieve the end result (Schiffman et al., 2010). A central facet of any extrinsic motivation is instrumentality, i.e., the individual's behavior is regulated from outside (Engstrom and Elg, 2015).

Value Co-creation Process

The importance of co-creation processes is widely acknowledged in the literature (Kao et al., 2016). In seeking new ways to create customer value, as per service-dominant logic, customers have strategic role to perform in value creation process. In line with this, the recent framework for value creation is centered on the co-creation process. Customers' role in value creation is changing from passive to proactive participation (Pinho et al., 2014). Shamim et al. (2016) mentioned that customers want to co-create unique experiences with the firms through interaction. Customer experience during interaction becomes central to the value creation

process. The service-dominant logic defines how companies deal with their customers through customer participation in the joint creation of service value (Vargo and Lusch, 2004). Roser et al. (2013) explained co-creation practices include co-design to mass customization, co-production, co-promotion and co-distribution. The literature also suggests two types of customers' participation in value creation process, participative behaviour that refers to the behavior that the customer adopts during the service encounter and citizenship behaviour which can create a higher value for the organization but which is not necessary for value co-creation (Yi and Gong, 2012 and Shamim et al., 2016).

Value Co-Creation Experience

Customer Co-creation experience has signified its importance that leads to change of attitude, repeat buying or brand loyalty. Social exchange theory holds that people who put more effort into an activity are motivated by the expected returns. Customer experience has been conceptualized as the customer's subjective response to the direct and indirect encounter with the service firm. Edvardsson and Tronvoll (2013) mentioned that value co-creation leads to in favorable, memorable customer experiences. The creation of a superior customer experience is considered key to attaining satisfied and loyal customers (Klaus and Maklan, 2012), and is thereby the ultimate goal for service offerings and organizations (Verhoef et al., 2009). Verleye (2015) elaborated the co-creation experience in terms of customer benefits. Co-creation experience depends on the degree to which expected co-creation benefits are met that determines their overall co-creation experience.

Crowdsourcing

In recent decade, the internet crowdsourcing platform demonstrates the benefit of collective wisdom for innovative ideas development. Crowdsourcing leads to more innovative solutions to an organization problem and this approach can aggregate the power of innovation for problem solving (Lee et al., 2015). For many organizations internet has become an important distribution and promotion channel. Internet gives a voice and a way to communicate with peers, customers and potential consumers. In addition, in some industries where customers are geographically dispersed and the quality of the service offered is difficult to prove if it is not directly

experienced, the opinion placed in the web by customers is extremely important. In such cases, Xu et al. (2015) argued that the good use and management of crowdsourcing applications by firms can be very advantageous. They further mentioned that crowdsourcing platforms capture tacit knowledge of customer requirements and allows the product to meet those requirements. Crowdsourcing is a useful tool to support creative individuals and introduces an environment that encourages knowledge management (Ebner et al., 2008). The use of crowdsourcing activities lead to generate competitive advantage for the firm. Hine et al. (2010) found that crowdsourcing practices have a greater capacity to learn, and leads to generate flexibility to respond to market changes. Schulze and Hoegl (2008) claimed that crowdsourcing has a positive effect on the creation of learning distinctive competencies in the firm. Xu et al. (2015) explained that crowdsourcing have a positive impact on innovation capacity, since tacit and explicit knowledge obtained from the customers can be used to improve processes or to create new products. Conley and Tosti-Kharas (2014) found that crowdsourcing leads

to improve firm's data analysis and research. Lee et al. (2015) explained that crowdsourcing allows companies to gain collective intelligence among people with different backgrounds, knowledge in diversified professional fields and expertise. They further mentioned the crowdsourcing advantages in terms of solving problems effectively, lowering costs and shortening product development cycles.

Crowdsourcing is a phenomenon receiving increasing attention in academic research. Hossain and Kauranen (2015) did a meta-analysis on crowdsourcing and found that although crowdsourcing has received a lot of attention from practitioners and scholars, only recently literature contains crowdsourcing. Different researchers have used different terms to defined crowdsourcing: peer production, user-powered systems, user-generated content, open innovation, open source software, collaborative systems, community systems, social systems, social search, social media, collective intelligence, wikinomics, crowd wisdom, smart mobs, mass collaboration and human computation. (Doan et al, 2011). Howe (2008) represented crowdsourcing as "the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined network of people in the form of an open call. Kleemann et al. (2008) defined crowdsourcing as an explicit form of integrating consumer input to commercialization activities. Sheehan (2010, p.107) defined crowdsourcing as the ability to gather large group of people around your brand and get them working to develop products and / or solutions. Lake (2011) defined crowdsourcing as using collective intelligence gathered from

the public and using that information to complete business-related tasks. These tasks are normally completed by the company or a third-party service provider, but through crowdsourcing the public assist in the completion of these tasks. Crowdsourcing allows the firm to gain insight into their customers and what they desire. Estelles and Gonzalez-Lardon-de-Guevara (2012) stated that crowdsourcing is formed from two words, crowd, making reference to the users who participate in the initiatives. The word sourcing refers to a number of procurement practices aimed at finding and engaging supplies of services. Blohm et al. (2013) distinguished two types of crowdsourcing: collaborative that provides common solution and competitive based on collecting and transmitting independent solutions. Britton et al. (2013) defined crowdsourcing as a distributed problem solving and production process that involves outsourcing tasks to a network of people, also known as the crowd. The use of crowdsourcing under different service settings have been mentioned in table 1 below:

Table 1 Crowdsourcing Under Different Service Settings

Service Setting	References
Video Services	Hobfeld et al. (2010)
Urban planning Projects	Brabham (2009)
Natural Disaster	Gao et al. (2011)
Geographical Information	Crampton (2009)
Goecoded Data	Hudson-Smith et al. (2009)
Education and Research	Gupta and Sharma (2013)
Research and Development	Wilkinson (2010)
Library Services	Springer et al. (2008)
Government Service	Rama (2011)
Social Welfare Service	Ali (2010)
Entertainment	Gupta and Sharma (2013)

Applications of Crowdsourcing

Idea Generation

Surowiecki (2005) mentioned the importance of collective effort of a large number of individuals than reliance on a few experts. Schweitzer et al. (2012) explained that companies use crowdsourcing in two forms, idea competitions that make fundamental use of crowdsourcing and idea competition that calls crowds to submit new ideas and select the best. Large comaponies such as dell, IBM, P&G, Starbucks and Unilever, etc. have turned to crowdsourcing to find better product designs.

Microtasking

Kittur et al. (2008) defined microtasking as a system in which users can select and complete small tasks for monetary or non-monetary rewards. Olsen and Carmel (2013) focused on the process of microtasking through crowdsourcing.

Public Participation

Hilgers and Ihl (2010) advocated the importance of crowdsourcing in enhancing public participation in public planning process. Seltzer and Mahmoudi (2012) mentioned that in public planning crowdsourcing is more effective than conventional

citizen participation. Public transportation via crowdsourcing can engage a wide range of people and it can facilitate an open dialogue between citizens and decision-makers.

Crowdsourcing and Internet

The success of crowdsourcing is related to the active and sustained participation of individuals (Malone et al., 2009). The literature introduced the crowdsourcing as an open innovation thereby offering suitable and ample opportunities to open up the innovative activities of the firm (Chesbrough, 2003). Xu et al. (2015) mentioned three types of innovation process, i.e., out-side in, inside-out and coupled process strategy. Litvin et al. (2008) condemned that online social networks play very important role to gather collective intelligence. Xu et al. (2015) further explained that innovative capacity of a firm is highly related to its connection with external networks that provides an opportunity to pool good quality of knowledge. Turban et al. (2009)

mentioned that web 2.0 or online social networks enhances innovation through crowdsourcing and enhances the products and services to meet customer requirements. Poetz and Schreier (2010) mentioned that crowdsourcing has social and technological context of the firm. Pery-Smith and Shalley (2003) argued that crowdsourcing through social networks can significantly enhance creativity of a firm. Sigala et al. (2012) explained that crowdsourcing though social networks enable the firm to co-create knowledge and ideas.

Social Media and Crowdsourcing

Kao et al. (2016) advocated that use of social media for customer value co-creation has been important but remains less clear. Payne et al. (2009) argued that the importance of social media in context of service-dominant logic and co-creation has been well acknowledged. Kao et al. (2016) explained that social media such as Facebook, LinkedIn and Myspace, etc. are fundamentally changing interactions between firms and consumers. Kane and Fichman (2009) advocated that social media provides opportunity to communicate and co-create with consumers. Social media leads to co-creation by users (Kim et al., 2010). Social media provides multiple, more intense and richer interactions (Sawhney et al., 2005). Kao et al. (2016) found that crowdsourcing through social media leads to generate benefits in terms of reduce cost, identifying customer needs, more customer engagements and positive customer attitude towards brand, purchase intentions and word of mouth referrals.

Motivation for Crowdsourcing

Motivation for crowdsourcing has been signified in literature. Heo and Toomey (2015) mentioned that the attention towards motivation to freely share knowledge and continued participation is gaining much attention. Motivation is a key factor and also differs significantly based on the nature of a task among crowds (Hossain and Kauranen, 2015). Sun et al. (2012) advocated that external motivation as well as internal motivations inspire the substantial knowledge sharing though crowdsourcing. The motivation for crowdsourcing has been defined as intrinsic (Hossain, 2012) and extrinsic among different service settings (Jeppesen and Lakhani, 2010). Later, Lee et al. (2015) also classified the crowdsourcing motivation as extrinsic or intrinsic.

Crowdsourcing Process

Majchrzak and Malhotra (2013) put emphasis on process perspective of open innovation through crowdsourcing. Muhdi et al. (2011) studied the innovation process though crowdsourcing and identified five major phases: deliberation, preparation, execution, assessment and post-processing. Olsen and Carmel (2013) identified the process perspective of crowdsourcing in form of evaluation phase, task design and integration. Kao et al. (2016) emphasized on value co-creation process through crowdsourcing on social media platforms. They further claimed that there is a lack of understanding of the process of co-creation on social media in context of crowdsourcing. Maglio et al. (2009) explained that co-creation process differs through crowdsourcing.

Crowdsourcing Experiences

Value co-creation process through customer-technology integration involves a highly complex that leads to both positive and negative experiences and feelings (Elsharnouby and Mahrous, 2015). Hankanen and Jaakola (2012) mentioned that customers might have different experiences that lead to varying levels of participation in the process of service value co-creation. Customers' online co-creation experience leads to firm's success in service innovation. Duverger (2015) advocated those customers' interactions during crowdsourcing process leads to create experiences which are different than offline context that can affect their attitude toward the firm.

Conclusion and Implications

This study systematically presents the conceptual framework of the service value co-creation through crowd-sourcing. A large amount of literature signifies the link between service value co-creation and crowdsourcing. But, this study fills the gap by building a framework of creating successfully creating service value co-creation through crowdsourcing in

terms of motivation, process and experiences of service value co-creation through crowdsourcing and their interrelationships. This study reflects the understanding individuals' motivation when they decide to engage in service value co-creation through crowdsourcing. This study brings the conceptualization of motivation for service value co-creation through crowdsourcing. This study also brings the importance of co-creation processes as the level of customers' participation in co-

creation process. The literature in this paper defines the link that customers having appropriate level of participation in service value co-creation process leads to have positive customers experiences. The study also signifies the importance of service value co-creation experiences through crowdsourcing. The study also brings the view that superior customer value co-creation experiences through crowdsourcing lead to generate better service innovation ideas. This study advocated that the motivation for crowdsourcing tasks leads to create favorable impact on crowdsourcing practices thereby leads to create superior experiences for innovative service co-creation. Firms can use this framework to design their crowdsourcing models. The future research can be diverted to find the specific criteria of service value co-creation motivation, practices and experiences and their interrelationships. The future research can also be conducted to define crowdsourcing practices in a special service value co-creation context.

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Sectoral Transformation Through Digitization

"To Recognize Operational Major Drivers of Mall Culture"

*Dr. Uma Durgude ***

Abstract

Organized retailing has become the reason for euphoria amongst Indian shoppers; the sector which is dominated by local players has got the entry of prominent corporate. As a part of the rising organised retail modern formats of shopping have started promising and attracting. Malls are one of those new formats which have gained momentum in numbers. Early growth of malls was found only in few metros, but now it has extended equally to smaller towns.

The reason behind popularity of shopping malls lie on its international popularity, it is thing of the past to see malls only in places like Dubai and Singapore. In fact, these multi-utility shopping malls are pervasive. Mall culture in India is prominently seen in all cosmopolitan and metro cities.

People across geographic landscapes have inclined towards new retail formats where they can get benefits in terms of money, time and effort. However, retaining their customers and extracting life time profit from them all is the biggest challenge that these retail formats are facing. The focus of the study is on shopper attributes such as per capita household income, distance and time taken to reach mall, demographic attributes like gender, age education, family type, occupation, family size, and psychological factors like life style, shopping orientation, temporal attributes like frequency of purchase, average time spent per each trip. These factors have major impact on shopping behavior especially in retail format selection of shoppers. And also determinant attributes of stores such as merchandise, price, pre and post purchase customer service, location, atmosphere and ambience and store facilities, temporal factors like perceived risk, task definition have their share in selection of particular retail format.

Outskirts have become preferred choice for mall developers in order to provide complete range of services. This phenomenon is found especially in new malls in Mumbai. These malls also need to provide relaxing seating for senior citizens and playing atmosphere to children. Time has come for the malls to provide different value propositions - value for quality, value for money, value for time and value for visitors' experience which can propel the shopping mall culture for rapid growth.

The current research is to study on various factors affecting mall culture, and recommend workable attributes to promote mall culture among Mumbai shoppers. The research has done is on the basis of literature review and empirical study, it was organized in few selected malls. The Primary sources of data is collected through research instruments - pre-tested structured questionnaire

***Keywords-** Format, Organized, Key Drivers, Demographic*

Introduction

The transformation of retail has taken a new dimension in metros and cosmos cities in India with the advent of malls. The first few launched malls like 'Spencer plaza' in Chennai, 'Cross roads' in Mumbai and 'Ansals plaza' in Delhi have ignited the spark which became the root for paradigm shift and transformed the entire landscape of organized retailing.

The growth of credit culture in India that has led to increased consumerism is another major fact, purchasing products on credit for what they want to use today and paying them tomorrow does not make Indian consumer feel shy. The market of luxury products is growing in India at very surprising rate as compared to almost negligible a decade ago, because the purchasing power of Indians is rising exceedingly. The recent studies show that Indian consumers have various changes in their buying behavior.

Review of Literature

Bhupta Malini and Vaish Nandini, (2010) has analyzed the effect of meltdown on the organized retail industry in India. After ten years, a downturn situation is observed in the Indian organized retail sector.

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Sheelah (2005) in her observation revealed that behavior patterns of weekday shopping differ with weekend shopping behaviour patterns. The uncontrolled shopping visits on weekends have a greater influence than shopping on weekdays.

Masayoshi and Le (2009) observed the shopping frequency in his research. The study showsthat convenience, freshness, gender and the presence of children in the house has a prominent effect on the occurrence of shopping.

Srivastava (2008) projected a picture of the retail development taking place in India. His research observed the changing panorama in the retail sector in view of many MNCs and outsized industries entering into this field.

Objectives of the Study

To recognizeoperational major drivers of mall culture

Research Methodology

The survey design, using a standardized questionnaire, is considered to be most appropriate research design to collect data. In the study structured questionnaire is used to get responses. As the questionnaire is taken personally to the respondents by researcher, this method assures a high response rate and any clarifications can be provided on the spot. In order to ensure reliability of the data collected, a structured questionnaire was used so that all respondents answer the same questions. The research methodology comprises sampling design, measurement of variables, methods of data collection, research instrument. The sample size was 170 people visiting malls.

Hypothesis

The major operational key drivers of mall culture are Life style, household income, demographic dynamism, retail infrastructure, internet revolution and foreign direct investment

Table 1

Analysis of Driving Factors

Sl. No.	Driving Factors	No. of respondents	Percentage
1	Changing life styles	111	65
2	Retail infrastructure	75	44
3	Mall ambience	22	13
4	Foreign direct investment	62	36
5	Rise in household income	106	62
6	Demographic dynamism	99	58
7	Internet revolution	84	49
8.	Promotional schemes	43	25
9.	Well known stores	32	19

Source: Primary data

All factors which act as drives of mall culture are tabulated for responses to find out key drivers. As per the above table shoppers perceived that changing life styles with 65 percent increase in household revenue with 62 percent, demographic vitality with 58 percent, internet upheaval with 49 percent, retail infrastructure with 44 percent, and Foreign Direct Investment with 36 percent are the major drivers among many that encourage mall culture.

Scope of the Study

The scope of research has been identified by the researcher; hence an attempt is made to identify the gaps, by investigating the shopping behavior of consumers, with reference to the emerging retail formats. The focus is on to the behavior a consumer exhibits in a new mall, may it be just visiting or for making purchases. It is to analyze the drivers and incentives behind the shoppers visit to new shopping malls, and shopping pattern in terms of their valuable resources like effort, money and disposable time. The much needed effort is to find out a base line for understanding the changing consumer attitude in future.

Importance of the Study

The present research comes out with useful results that have implications for both researchers and practitioners. Visit to a mall in itself is suitable, inexpensive and convenient way to break the daily routine and get into a different world. Views of the all stake holders - customers, managers, developers, and retailers, regarding all mall factors. Mall developers need to focus on creating distinctive identities for their malls, similar to the identities that have been created over time

by major brands across the globe. This requires a lot of preparation much before actually the commissioning of mall takes place. The present research study can serve as guideline for mall developers and managers who think malls can be built based on their whims and fancies instead plan delicately and wisely according to customer requirements and design strategies meticulously so that they can sustain in long run.

Limitation Of The Study

Researcher has taken all measures to ensure that the study design optimizes the ability to achieve the research objective. However there are some factors and limitations that do not validate the study but made to be noticed.

1. This study is restricted to the city of Mumbai & Navi Mumbai only.
2. The research is based on the perceptions of the mall visitors who is highly subjective in nature and hence generalization made may not be completely true.
3. In the course of personal interview the subjective nature of interviewers might also have influence upon the response-received for the current study.
4. Certain aspects of the study concentrate on both visitors' perceptions and their shopping attitude.

Conclusions

During the course of present research the demographic profiles were originated to be the essential influential factors in the emerging trends of consumerism in the country. It was scrutinized that the shoppers gave utmost importance to availability of deep range of merchandise.

'The major operational key drivers of mall culture are Life style, household income, demographic dynamism, retail infrastructure, internet revolution and foreign direct investment' have been tested and accepted.

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Study on Role Commitment of Management Teachers

Yamuna Samraj Gounder* & S. M. Senthil Kumar**

Abstract

With the economic growth and the progress of business taking place in the liberalization, privatization and globalization (LPG) era, the need for management education, which is a formal way of education for managing business, became the need of the hour. It became a necessity to have Business Schools also known as, 'Management institutions'. In the last decade and a half, we have been witnessing tremendous demand for Management education as there is demand from the Industry as well, to absorb bright management graduates from business schools.. Success of educational process to a larger extent depends on the teachers' commitment, attitude, character, ability and personality of a teacher. he has to have exceptional empathy, persistence, diligence, sincerity, research orientation, honesty and flexibility. A Teacher is the role model, whose attitude and personality are imitated by the students consciously and unconsciously. Role commitment has been identified as one of the most crucial factors for the success of a teacher in the field of education.

The teacher's entire personality is reflected on the minds of students. If the teacher is honest, leads a balanced and disciplined life, the student adopt these virtues as 'Ideal Conduct' unconsciously. Teacher's personality leaves an indelible mark in the young mind of the child. So, the teacher must be competent and able to steer the ships of destinies of those who are entrusted to him. The teacher is not only an instructor, but a model for his students at all levels of education. The role of the teacher has assumed greater significance with universalization of education. People's attitude towards their professions has an effect on their performance..

Introduction

There are several aspects of critical concern in the context of teacher and management education in India. Inevitable expansion and growth of business has enhanced the number of management institutes, number of faculty members and other functionaries. As it invariably happens, large scale expansion often leads to dilution in quality when necessary precautions are not in built in the process of growth. Needless to say, quality of faculty, teaching, and professionalism in education has caused concern in the past couple of years.

Role Commitment has assumed a great importance in the realm of education throughout the world. Role commitment is defined as the degree of positive, affective bond between the teacher and the institution. It does not mean to a inactive type of loyalty where teachers stay only with their jobs, but are not really shown interest in the institution or their work, rather it reflects the degree of self drive and motivation, enthusiasm and job satisfaction derive from teaching and the degree of efficacy and effectiveness they achieve in their jobs (National Center for education Statistics, 1998). In education the commitment is one of the most important aspects of the performance and quality of teacher. The teacher forms the nuclear of any system of education. The impact of teacher on the upcoming generation i.e. students, is very subtle and long lasting. It isnecessary that he should feel committed, contended and devoted to their noble profession.

From the review of literature it is concluded that faculty exhibited a low degree of role commitment to teaching profession (Assam, 2011; Kaur, 2012; Bogler, 2015; Knobloch and Whilligton, 2007; Dhaliwal, 2011). Healthy institute environment enhances commitment among teachers (Cheng, 1996; Punia, 2000; Shishupal, 2011,Parthiban, 2008). The main objective and hypothesis of the present study are:

Global competition is changing the relationship between management education and business. The efforts for building leadership pipelines in organizations have intensified in the last five to six years (Conger & Fulmer 2012). Continuous changes in both technology and economic systems, along with the speed of change, require management faculty to be engaged in a constant learning process. Management education has become a major profession that attracts considerable attention across the world. It was clear that management education needed to create a portfolio of learning through the use of a variety of approaches. Till recently, there has been no major discussion on changing role of management education, role commitment of a management faculty and desired attitude of management teacher and faculty development programmes for management teachers, that leads to produce socially responsible future managers.

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Objective

To studythe role commitment levels of management faculty

Hypothesis

There is a significant difference among management faculty in levels of their Role Commitment.

Methodology

As the study deals with management teacher roles, and role commitment, teacher attitude towards teaching, stakeholder's expectations as well as influencing factors of teacher's performance, the research is based on direct personal investigation and online reply by the respondents. The research is survey in nature with Qualitative and Quantitative approach. As a tool the study has used Questionnaire at large and Interview Guide to a small extent to collect more in-depth information. In all 60 samples (Faculty –50, Directors – 10)) are considered across management institutes.

H_1 : Levels of role commitment differ among demographic profiles of management faculty.

Table: Degree of Role Commitment

Dimension	High	Average	Low
Gender			
Male	8	15	5
Female	4	12	6
Age			
25-35	2	4	3
36-45	3	9	3
46-55	2	9	2
Above 55	4	8	1
Education			
Post graduation Level	9	20	11
Doctorate	2	5	3
Experience			
Less than 10	2	5	7
11-15	1	4	4
16 -20	2	5	5
21-25	1	3	5
Above	4	1	1
Marital status			
Married	6	8	16
Unmarried	9	5	4
Family type			
Single	2	4	4
Nuclear	7	8	7
Joint	6	8	4
Monthly salary			
Less than 25000	2	5	2
25001-50000	3	9	3
50001-75000	2	9	2
Above 75000	4	6	3

The table above represents the analysis of number of faculty members come under the category of High commitment, Average commitment and Low commitment levels based on the responses in the questionnaire across different demographic profiles.

The following analysis was done to test the above hypothesis through ANOVA.

Table: ANOVA Analysis

Dimension	Mean	SD	F- Value	P- Value (á= 0.05)
Gender				
Male (N =162)	3.15	0.96	6.589	**0.002**
Female (N=138)	3.46	1.14	9.249	
Age				
25-35(N =94)	2.96	1.10	8.569	**0.012**
36-45(N =91)	2.42	0.84	11.598	
46-55(N =63)	2.18	0.93	2.325	
Above 55(N =52)	3.16	1.08	9.265	
Education				
Post graduation Level(N =243)	2.96	1.41	7.984	**0.000**
Doctorate(N =57)	3.99	1.08	9.658	
Experience				
Less than 10(N =94)	2.15	0.92	6.471	**0.001**
11-15(N =51)	1.96	1.20	8.124	
16 -20(N =40)	2.49	0.89	2.359	
21-25(N =46)	2.69	1.01	3.217	
Above 25(N =69)	3.87	1.06	28.598	
Marital status				
Married(N =188)	3.01	0.91	11.874	**0.002**
Unmarried(N =53)	2.96	0.74	1.212	
Divorced(N =27)	3.11	1.69	1.658	
Widows(N =32)	3.25	0.97	2.569	
Family type				
Single(N =47)	3.22	0.81	10.236	**0.001**
Nuclear(N =142)	2.91	0.79	1.009	
Joint(N =111)	2.67	0.88	9.631	
Monthly salary				
Less than 25000(N =52)	2.19	0.10	11.120	**0.000**
25001-50000(N =120)	1.84	0.95	3.147	
50001-75000(N =87)	2.36	1.10	5.698	
Above 75000(N =41)	2.45	1.13	11.369	
Status of the Institute				
Affliated to university of Mumbai (N =159)	2.56	0.92	5.698	**0.003**
Other than Mumbai University (N =141)	3.24	1.01	9..589	

The faculty members responses are categorized as High commitment , Average commitment and Low commitment levels based on the minimum and maximum points for the scores obtained for 15 variable on role commitment, the test applied is Analysis of Variance (ANOVA), the demographic factors- Gender (0.002), Age (.012), Education (.000), Experience (.001), Marital status (.002), Family type (.001), Monthly salary (.000), for all these factors, P- value is less than 0.05 (á =0.05), The above analysis shows mean ratings by different demographics, the test applied is Analysis of Variance (ANOVA). In the Table If P<= 0.05 the difference between groups and within the group in the respective demographic category is significant.

Findings

The study reveals that many important roles like, soft skills trainer, counselor, administrator, motivator, humanitarian, innovator are not very well aware of and not given much significance to these roles when compare to other roles mentioned above across faculty of management institutes in Navi Mumbai and Mumbai. Other roles mentioned by few faculty members are placement provider, parent, guardian, and career provider. Specific findings of the study are ;

1. It is shown from the analysis that 31 percent of faculty members are in favour of the view that management faculty need to play many roles, whereas and 55 percent of faculty members are not in favour of this view.

2. It is evident from the analysis that 31 percent faculty members opined that just teaching not enough for faculty at post graduation level, whereas surprisingly 55 percent faculty members are not in favour of this view.

3. It is evident from the analysis that 32.3 percent faculty members expressed that vital role of a faculty at post graduation level is to produce effective managers to the corporate whereas 41.7 percent of faculty members are not in favour of this view.

4. It is evident from the analysis that 39 percent of faculty members are in favour of the two faculty roles – mentor and counselor, whereas 33.7 percent of faculty members are not in favour of this view.

5. It is evident from the analysis that 49.6percent of faculty members are in favour of the two faculty roles – grooming and placement , whereas 27.7 percent of faculty members are not in favour of this view.

6. It is evident from the analysis that 54 percent of faculty members said that they actively involve in research activities and nnovative in teaching, whereas 26 percent of faculty members are not active in research and not innovative. the statement

7. It is evident from the analysis that 30 percent of faculty members said they review the days work as a part of following days preparation, whereas 50.7 percent are not in full practice of the same.

8. It is evident from the analysis that 30 percent of faculty members are ready to give their time to thestudents after college hours, whereas and 50.7 percent of faculty members are not ready to spare time after the college hours.

9. It is evident from the analysis that only 30 percent of faculty members are experimental, and 54.4 percent of faculty members are not experimental from the sample of the study.

10. It is evident from the analysis that 54 percent of faculty members are willing to come early and stay back in the evening as per the needs of the organization, whereas 26 percent of faculty members are not completely agree with this view

Conclusion and Recommendations

Conclusion

It is understood that institutions differentiate themselves from each other in terms of the core competencies of the faculty that they possess and the capabilities of these resources to successfully deliver value in terms of knowledge and skills to the students enrolled with them. Changes in the business world does effect the business schools as the outputs of the B-schools are directly absorbed by the corporate provided they possess upgraded knowledge and skill transmitted to them by the B-school.

Recommendations

Existence of a good practices is a necessity in a B-school as the personnel policies framed by the institutes will take care of the long term perspective along with the B-school mission and vision. It is essential to have healthy management systems and practices in place in order to build a work climate which will keep up with the institutions culture and motivate the faculty to be committed towards institutional objectives. B-schools by practicing benchmarking HRM practices we can have best of people possessing the necessary competencies performing their best in their role and better serve students and other stake holders.

The study shows that large number of the respondents are of the view that their institute don't have a clear structure that shows a career growth path to move from lower to higher positions.. Career aspiration and career growth is given utmost importance by all employees and unless opportunities are provided for the same they will look for fresh pastures. With Career and development plans if provided will make the employees committed, dedicated and genuine in theircontributions to the institute. This will help in retaining high performers and improved return on investments. Therefore it is essential to have proper structure for faculty to understand their career growth.

Faculty of B-schools needs to possess cross functional knowledge apart from their area of specialization for which it is essential to work on forming cross functional teams and indulging the faculty to work on temporary assignments and on rotation. This can be done only by persons who have expertise in managing the people resources. It is recommended to take help of a HR professional in this activity.

It is highly recommended to introduce a system of having mentors for junior faculties by people who are in the profession for considerable amount of time and are experts in their area.

A Study on E-Governance Initiatives in Karnataka

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Abstract

Department of Business Administration, Mangalore University, KarnatakaT (Information and Communication Technologies) now being considered as one of the important instruments in every aspects of government, business and a person's daily life. E-governance is basically the application of ICT in delivery of government services and information to the citizen, and allowing citizen to interact with government. E-governance is one of the driving forces which led to various initiatives, enables transparency and better governance by the government of Karnataka. In these days development of any country is depend on the use of information technology. Development of any states can be judged by the scope of e-governance in that country. In India lot of e-governance projects being initiated by the government of India at national level. Several state governments have taken steps to adopt the e-governance in many areas like public administration, public services, rural services, e- services, e-participation, health services, agriculture, land, police administration, banking, transportation etc.

Karnataka has recognized as an "IT hub" of the country. In the state not only Indian IT companies but also international companies are situated. It has been witnessing and experiencing IT revolution during the recent years, like all other states, Government of Karnataka also initiated many e-governance services like computerised land records (Bhoomi) and treasury operations (Khajane), Bangalore one, nemmadi, Karnataka one, Kaveri etc.

In this paper an attempt has been made to addresses and analyse the e-governance initiatives in Karnataka, the problems and challenges faced during implementation and after implementation of e-governance.

Keywords: E-governance, ICT, IT Revolution, Karnataka

Introduction

Every Citizenof the country facing Many challenges in Availing government services, the problem Maybethey are unaware about the government services providing to them or May not be aware of How to avail this service.Also, there may be other reasons like illiteracy, poor infrastructure, long distance to the government offices where people have to travel daily to get the services.In this Regard e-governance plays a vital role in providing access to government services for citizen and making the delivery of government more efficient and transparent.

The beginning of the 21st century has been so much dominated by Information Technology (IT) that it has become a joke that in the dictionary all words will now begin with the letter "e". Perhaps existence itself would now become e-existence. It is therefore, not surprising that everybody is talking about e- governance.

E-governance and the contribution of rapidly advancing technologies have increasingly taken centre stage in the promotion of good governance. Unlike other public reforms that seek to increase internal efficiency and, therefore, focus almost strictly on increasing government's capacity to deliver services, e-governance and the combination of data analysis and citizen input platforms has the potential to transform the very nature of the relationship between citizens and their governments.

This paper intends to analyse the current status of the e-governance in Karnataka.Therefore, in this paper, e-governance is taken to mean 'the application of information & communication technologies to transform the efficiency, effectiveness, transparency and accountability of informational & transactional exchanges with in government, between governments. &government, agencies of National, State, Municipal & Local levels, citizen & businesses, and to empower citizens through access & use of information'.

Types of Interactions in e-Governance

E-Governance facilitates interaction between different stake holders in governments. These interactions may be described as follows:

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G2G (Government to Government) – In this case, Information and Communications Technology is used not only to restructure the governmental processes involved in the functioning of government entities but also to increase the flow of information and services within and between different entities. This kind of interaction is only within the sphere of government and can be both horizontal i.e. between different government agencies as well as between different functional areas within an organisation, or vertical i.e. between national, provincial and local government agencies as well as between different levels within an organisation. The primary objective is to increase efficiency, performance and output.

G2C (Government to Citizens) – In this case, an interface is created between the government and citizens which enables the citizens to benefit from efficient delivery of a large range of public services. This expands the availability and accessibility of public services on the one hand and improves the quality of services on the other. It gives citizens the choice of when to interact with the government (e.g. 24 hours a day, 7 days a week), from where to interact with the government (e.g. service centre, unattended kiosk or from one's home/workplace) and how to interact with the government (e.g. through internet, fax, telephone, email, face-to-face, etc). The primary purpose is to make government, citizen-friendly.

G2B (Government to Business) – Here, e-Governance tools are used to aid the business community – providers of goods and services – to seamlessly interact with the government. The objective is to cut red tape, save time, reduce operationalcosts and to create a more transparent business environment when dealing with the government. The G2B initiatives can be transactional, such as in licensing, permits, procurement and revenue collection. They can also be promotional and facilitative, such as in trade, tourism and investment. These measures help to provide a congenial environment to businesses to enable them to perform more efficiently.

G2E (Government to Employees) – Government is by far the biggest employer and like any organisation, it has to interact with its employees on a regular basis. This interaction is a two-way process between the organisation and the employee. Use of ICT tools helps in making these interactions fast and efficient on the one hand and increase satisfaction levels of employees on the other.

Objectives of the Paper

1. To understand the present status of e-governance in Karnataka.
2. To study the e-governance initiatives undertaken by government of Karnataka.
3. To suggest better e-governance in Karnataka.

Methodology

This is basically a conceptual paper based on a secondary data which is obtained through research articles, publications, books and news reports.

E-Governance in India

India's e-governance transformation initiatives started in the 1990s. Since then the country has made considerable progress in the information and communication technology sector. To improve IT performance and productivity, the Government of India approved the National e-Governance Plan (NeGP)3 on May 18, 2006 which seeks to improve delivery of government services to citizens and business establishments with the vision to "make all government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency and reliability of such services at affordable costs to realise the basic needs of the common man".4 e-Governance has become the basic requirement to any form of governance at the local, regional, national or international level. While the 1980s saw the development of computerisation in the government sector, the 1990s witnessed the importance of overall computerisation with a centralised model in India. With the cost of communication and IT infrastructure going downwards and demand going upwards, the e-governance initiatives took shape in the decade of 2000s. Thus, the government sponsored e-governance projects with the corporate world took a big leap to provide the impetus for long term growth of e-governance within the country.

Initiatives in Various Sectors

Agriculture: The major services of Agriculture MMP include Pesticide registration, Display on the Web of Seed Testing Results, Prices and arrival details, Geographical Information System (GIS) based interface for price & arrival details, District level Agro-met advisories, Information on pesticides, Information on fertilizers/seeds, etc.Some major mobile applications developed are

Kisan Suvidha: This app provides information on five critical parameters- weather, input dealers, market price, plant protection and expert advisories.

Pusha Krishi: This app provides information on latest technologies to farmers.

Crop Insurance: Famer can learn of insurance premium, notified area etc. on the mobile.

Agri Market: Farmer can learn of the prices of various crops in the mandis near him.

India Weather: This app provides current weather and 4 days weather forecast across the country for more than 300 cities.

The Major Web Portals Developed Include the Following

Farmers' Portal: Farmers' Portal is a one stop shop for farmers where a farmer can get information on a range of topics including seeds, fertilizer, pesticides, credit, good practices, dealer network, and availability of inputs, beneficiary list and Agromet advisories.

mKisan Portal: This is a unified platform from where officials and scientists can send targeted text and voice based advisories to the farmers on a host of issues related to agriculture and allied sectors.

Crop Insurance Portal: To provide complete information related to Crop Insurance scheme being implemented in the country.

Participatory Guarantee System of India (PGS) Portal: This is a portal for encouraging participatory approach to certification of organic farming in the country.

e-Mandi: The Government has launched e-Mandi portal to make procurement of agricultural products smoother and provide competitive remuneration, especially for small and marginal farmers.

Land Records: Major services include real-time availability of land records, issuance of Record of Rights along with cadastral maps, issuance of certified copy of deed, issuance of non-encumbrance certificate, payment of stamp duties etc. 26 States have computerized their land records and providing computerized copies of Records of Rights on demand. These states have also placed their land records data in public domain.

School Education Mission Mode Project (MMP): The MMP is focused on Primary, Secondary and Higher Secondary education. It will be a driving force for implementation of National Policy on Information & Communication Technology (ICT) in School Education.

National Scholarships Portal (NSP): The portal is a one-stop solution to implement end-to-end disbursement of the scholarship to the beneficiaries. The process includes student registration, application, approval and disbursement. 76 schemes of 22 Ministries/Departments of the Government are being on-boarded on the portal.

Aadhaar & Direct Benefit Transfer (DBT): 103+ crore citizens enrolled. 27+ Crore Bank Account seeded with Aadhaar No. 74 Government Schemes are on DBT, where Rs. 1.2 lakh crores transferred through DBT.

Central Excise and Customs: Facilitates trade and industry by streamlining and simplifying customs and excise processes and to create a climate for voluntary compliance.

MCA 21: The major services delivered under the aegis of Ministry of Corporate Affairs through MCA21 include viewing of public records, issue of certified copy of documents, change in registered office, change in director(s), annual filings, application for change of name of a company, incorporation of a company and name allocation to a new company.

Passport Seva: Project focuses on reforming Passport services in India through simple, efficient and transparent processes from processing of Passport to delivery of services.

e-Tourist Visa: Tourists can apply visa online, pay visa fee online and receive e-Tourist Visa online. Around 8.45 lakh e-Tourist Visas have been issued since Nov, 2015.

e-Courts: The services delivered through the e-Courts MMP include Automated case filing, Automated registration of case, Automated workflow for court, Generation of automated cause list, Judicial service centers in all Courts, Automation of Case Management System, allocation of cases, etc.

Common Services Centers (CSC) 2.0: The CSC aims for establishing at least one CSC in each of 2.5 lakh Gram Panchayat (GP) level under Digital India Programme to deliver various G2C, B2C and B2B services online.

e-District: e-District services have been launched in 555 districts of the country, which delivers various types eGov services at districts.

The Major Web portals developed include the following*Mobile Governance:* The Mobile Seva platform delivers Government services over mobile devices using mobile applications installed on the user's mobile handsets. About 2521 Government departments and agencies at central, state and local levels have been integrated with the Mobile Seva platform.

e-Hospital: – Online Registration System (ORS): It includes online appointment and registration by new patients, viewing of lab reports, checking the status of blood availability and integration with payment gateway (PayGov). 43 hospitals have been integrated.

Jeevan Pramaan: Digital Life Certificate for Pensioners scheme known as Jeevan Pramaan envisages digitizing the whole process of securing the life certificate. With this initiative, the pensioner is no more required to physically present himself or herself in front of disbursing agency or the certification authority. Jeevan Pramaan is a biometric enabled digital service for pensioners. 16.30 lakh pensioners registered for the scheme.

Vikaspedia: It is a multilingual collaborative content creation platform that promotes access and sharing of e-knowledge for empowerment of underserved communities. Vikaspedia facilitates societal empowerment through provision of relevant information in various domains including Agriculture, Education, Health, Social Welfare, Energy and e-Governance in 22 scheduled languages of the country, besides English.

MyGov: MyGov aims to establish a link between Government and Citizens towards meeting the goal of good governance. MyGov encourages citizens as well as people abroad to participate in various activities i.e. 'Do', 'Discuss', 'Poll', 'Talk', 'Blog', etc. There are multiple theme-based discussions on MyGov where a wide range of people can share their thoughts and ideas.

E-governance in Karnataka

In the month of October 2011, the then Chief Minister of Karnataka, during his regular Interactions with Citizens in his "Janatha Darshan" learnt that quite a few requests that came to him were for routine services that were bound to be given by the Government. Yet the citizens were deprived of receiving these services. Hence he directed the Chief Secretary, Government of Karnataka (GoK) to look into these aspects and come up with a legislation that would provide and guarantee Citizens with basic services that ought to be provided within a stipulated time. The CS in turn entrusted the job to the Secretary, Department of Personnel and Administrative Reforms, GoK to formulate an Act to deliver government services in a time bound manner. After series of deliberations the draft Act was ready by December when it was unanimously passed by the Legislature. Subsequently, preparation of rules was done by January, training of staff in January and February, pilot launch happened in 4 talukas (administrative sub divisions) on 1st of March and State wide roll out on 2nd of April with 151 services. Thus came into effect 'The Karnataka Guarantee of Services Act 2011". This comprises of the largest ever offered set of services to citizens under any other Act of the States of India. The Second phase began on 2nd November, 2012 wherein 114 additional services have been added taking the total to 265.

Karnataka Guarantee of Services to Citizens Act, is the largest in the Country in terms of coverage i.e. 265 services of 30 departments/institutions that touch each Citizen's life on a daily basis. e.g:

1. Caste Certificate (Revenue Department)
2. Income Certificate (Revenue Department)
3. Residence Certificate (Revenue Department)
4. Registration of Birth & Death (Urban Development & Revenue Department)
5. Driving Licence (Transport Department)
6. Learner's Driving Licence (Transport Department)
7. Vehicle Registration (Transport Department)
8. House Plan Sanction (Urban Local Bodies)
9. Copy of FIR (Police Department)

E-governance initiatives in Karnataka

The following are the major e-governance projects initiated by the Karnataka government.

Boomi Project

Bhoomi – a flagship project of Karnataka State Government is a Land Records management system. The project was inaugurated in the year 2000. Under this project, all the manual RTCs which prevailed at the time of data entry were digitized and made available to the citizen through Kiosk Centres. All the ownership or any other changes in the RTCs are carried out through mutation as per KLR Act using the Land Records database. Bhoomi back offices have been set up at 176 talukas, 1 additional taluk & 26 special talukas of the state. In each of these centres LR Kiosk & Application Kiosk have also been setups. The citizen / farmer can directly walk into the Application Kiosk & apply for mutation by submitting the required documents. Acknowledgement number is also issued to the citizen at this Kiosk. The applicant can knowthe status of his mutation by using this Acknowledgement number.

All the mutation requests are processed at Bhoomi back offices. Bio-login finger print authentication is used for all users in Bhoomi application to prevent unauthorized access to application / database. All RTCs are being digitally signed using PKI (Public Key Infrastructure) concept. Amount collected in the Kiosk centers is remitted to PD Account of Deputy Commissioners. Bhoomi is a self sustained project. All the expenditures relating to purchase / maintenance of hardware, infrastructure, technical manpower, stationery, consumables etc are met through the user charges funds collected at Kiosk centers.

KHAJANE'

'*KHAJANE*' is a major e-governance initiative of the Karnataka State Govern-ment. Basically, it is a government-to-government (G2G) project, except for service pensions and social security pensions, which have an interface with the citizens. This project was implemented mainly to eliminate systemic de-ficiencies in the manual treasury system and for the efficient management of state finances.

This project is the first of its kind in the country where the entire treasury activity has been computerised. This is the only project where, from the time of approval of the state budget to the point of rendering accounts to the gov-ernment, the entire activity can be tracked through the system.

There are 216 treasuries functioning across the state. Of them 31 are dis-trict-level treasuries (three special district treasuries in Bangalore and one in Hubli) and 185 are sub-treasuries at the taluk and sub-taluklevels. All the treasuries in the state are banking treasuries, where the cash transaction is handled by agency banks. The treasuries in the state disburses salaries to about 7 lakhs government and grant-in-aid employees, services 4.3 lakh pensioners and 15.7 lakh social security pensioners. From 228 departments, 21,000 drawing officers draw money for 2117 schemes from the treasuries in the state. The treasuries handle about Rs 36,000 crores of receipts and Rs 46,000 crores of payments annually. In addition to state government trans-actions, the treasuries also handle the Z*illa Panchayat and TalukaPanchayat* transactions, which is unique in the country.

KAVERI

KAVERI Online service is a web based application of Department of Stamps & Registration, Government of Karnataka that provides interface to the citizen to enter details and book appointment for document registration and also provides facility to search for required Index and registered copies.

These services enable citizen to download Index (List of transactions on the searched property) and copy of the document. Citizens can also book appointment for registering documents. This will help citizen to check the present owners of the properties, helps citizen in checking the authenticity of the registered document and also helps citizens to book appointment for document registration.

Land Taxes

National Informatics Centre (NIC) has released 'Aasthi Terige' (property tax) a system to help Gram Panchayats calculate and collect property tax. However the software is unsuitable for this project, as it is different from the system of property tax in DK district. According to the Panchayat Raj Act gram panchayats had to fix annual rental value (ARV) and 10 per cent of ARV has been calculated as property tax. According to the new guidelines property tax should be fixed based on the square feet of buildings classified in three categories-thatched, tiled and concrete houses. The property tax fixed based on the discussions in such committees was found five times more than the previous taxes. So Gram Panchayat secretaries to put the software to use by calculating property tax based on property tax.

Online Ration Card Processing System

The main purpose of this project was to set up a database of the ration cards specially BPL cards, evolve a mechanism for identifying ineligible and unlawful ration cards, eliminate the ineligible and unlawful ration cards, which were already in existence, build a proper foundation for issuing of the ration cards as a continuous process as requests will keep coming in. It is also important to verify these requests for genuineness before issuing. Again this cannot be done manually. To handle this system, the online system for the ration cards request has been developed and has been put on the public domain.

The citizens can apply online without visiting the food offices. The citizens are required to provide the photographs and finger print bio-metrics details through the service centers. The computer facilities and staff at the gram panchayaths are used to assist the rural citizens to apply online and provide photographs and finger print bio-metrics there itself. Information furnished in the applications are juxtaposed with the data relating to existing ration cards, LPG connections, electricity meter number or property tax number in the rural area and the results are made available.

The system is incorporated with a number of checks and balances to validate/verify the online application data, submitted by the citizens. Based on the scrutiny and local inspection results the food inspector approves and the ration card generates. If the food inspector has any doubt about the case, he performs the field verification before issuing the ration card.

SAKALA

Karnataka Sakala Services Act was passed in 2011 to provide guarantee of services to citizens in the Indian state of Karnataka with a stipulated time limiting to citizen related services. The act came to be known as Sakala Act since November 2012. Karnataka is the tenth state to incorporate an act under Right to Public Services legislation. The Sakala program is backed by a comprehensive information technology network, developed by the National Informatics Centre (NIC) to provide solutions and services and to monitor the services.

Analysis

Karnataka State referred as one of the IT hubs since many IT companiesare situated in Karnataka especially in Bangalore. When we compare e-governance initiatives of other states with Karnataka, it is evolving towards maturity; there are lot of e-governance initiatives adopted by the Government of Karnataka.

According to the e-taal (portal Electronic Transaction Aggregation and Analysis Layer) which manages the e-transaction of e-governance projects Layer, statistics, Karnataka ranked 12[th]place in the country.

From the evidence of both theoretical and empirical study reveals that e-governance in Karnataka is inevitable and it is progressing from the beginning. From the result of survey it shows that there is lot more development is needed and many e-governance services should be added to the present services.

There are many problem which normally e-governance is facing, overcoming these problems can make the e-governance more effective andalso needto create more awareness among the people about the existing e-governance projects

Problem and challenges faced by the e-governance in Karnataka.

Lack of training: large numbers of officials were higher aged and had never worked with the technology; in this case training is very much required for those officials. And also in other case since the programmes are designed by the IT professionals, they know better than any other so training for the officials from the technical expertise.

Lack of Planning: The poor planning and implementation is one of the reason for slow development of e-governance in Karnataka. Planning about technology, people, coordination of deferent department, stages of adoption process etc. should be planned effectively.

Hesitation of going digital: the people usually restrict to change. Vested interests thought use of such technologies as transgression into their authority.

Lack of awareness: Lack of awareness is one of the challenges faced by the Karnataka e-governance. The usually people are unaware about the services provided by the government of Karnataka.

Infrastructure: Infrastructure provided by the government for effective implementation of IT enabled services is very poor and inadequate,

Lack of awareness about the Technology: In Karnataka most of the higher aged people are illiterate and they were not using the technology

Conclusion

Many e-governance projects in Karnataka including ICT based not only creating the e-government but also encouraging people's participation in the e-governance. But it must be citizen centric by allowing citizen in decision making process. The governance programmes are planned without the involvement of villagers, unsuccessful of development programmed is because of poor administration and ineffective development machinery at the village level.So there must be change in existing system of e-governance. The best instrument to reduce this is panchayathraj which makes more participation in the implementation of plan at the rural level. The main success factor of e-governance is stakeholder, and the other factors like ability to use, creativity in implementing, interest of learning, good infrastructure which leads to the successful-governance.

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