DIGITALISATION IN INDIA

Dr. C. SUBATHRA
Mr.S.SELVANATHAN

Mayas Publication®

DIGITALISATION IN INDIA

CHIEF EDITOR

Dr. C. SUBATHRA

M.Com., M.Phil., PGDHRM, M.A (Soc.), M.Sc (Psy.),UGC-NET, Ph.D.
Assistant Professor of Commerce, Pioneer Kumaraswamy College, Nagercoil-3.
Affiliated to Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu, India.
Email: drcsubathra@gmail.com Contact: 95852 12775

CO- EDITOR

Mr. S. SELVANATHAN

M.Com., M.Phil., M.B.A., PGDCA
Assistant Professor of Commerce (SF),
VHNSN College (Autonomous), Virudhunagar.
Affiliated to Madurai kamaraj University, Madurai
Email: vnr_selva1987@yahoo.co.in Contact: 9843439197

Published by
Mayas Publication®
Tamil Nadu | Kerala | Karnataka | New Delhi
maya1984Kannan@gmail.com
www.mayaspublication.com
www.eijfmr.com

Published In

Published by
Mayas Publication®
Tamil Nadu | Kerala | Karnataka | New Delhi
Maya1984Kannan@gmail.com
www.mayaspublication.com
www.eijfmr.com

Book Name: **DIGITALISATION IN INDIA**

Authors Name: **Dr. C. SUBATHRA & Mr. S. SELVANATHAN**

ISBN: **"978-93- 87756- 86-1"**

Edition: **First - July 2019**

CONTENTS

CHILDREN IN DIGITAL WORLD

***Dr. C. SUBATHRA**
Assistant Professor of Commerce,
Pioneer Kumaraswamy College, Nagercoil-3.
Affiliated to Manonmaniam Sundaranar University,
Tirunelveli, Tamilnadu, India.

ABSTRACT

As the debate about whether the internet is safe for children rages, The State of the World's Children 2017: Children in a Digital World *discusses how digital access can be a game changer for children or yet another dividing line. The report represents the first comprehensive look from UNICEF at the different ways digital technology is affecting children, identifying dangers as well as opportunities. It makes a clear call to governments, the digital technology sector and telecom industries to level the digital playing field for children by creating policies, practices and products that can help children harness digital opportunities and protect them from harm. Every age has its myths. Myths are often equated with falsehood, but their very persistence reveals society's deeper commitment to particular values. Some myths in the digital age are remarkably hard to shake, even though evidence from research and experience often contradicts them. Here are my top myths about children in the digital age.*

Keywords: *Children, Digital, Society*

INTRODUCTION

Children's Learning in a Digital World presents exciting and challenging new ideas from international scholars on the impact of computers, the Internet, and video games on children's learning. Features exciting new research which reassesses the threats posed by technology to the social, emotional, and physical development of children.

OBJECTIVE

- To understand about children in modern world
- To study about children in modern society.
- To analyze about children in digital era.
- To understand about the state of the world's Children
- To provide conclusion based on the study.

STATEMENT OF THE PROBLEM

Examines the impact of technology in both formal and informal learning contexts, covering a range of technologies relevant to students and researchers, as well as professional educators. Presents key information on the social and cultural issues that affect technology use, in addition to the impact on children's learning. Includes research from an international range of contributors.

METHODOLOGY

Details and information collected for the purpose of the study was collected from the secondary sources. viz., websites, published articles, thesis and dissertation, Journals, magazines etc.

CHILDREN IN MODERN SOCIETY

Childhood is a fundamental stage and its influence extends into adult life. To guarantee that children and adolescents have the best possible start in life is the way to ensure the development and progress of nations. The dictionary defines childhood as the period of life between infancy and puberty. Often these days, this is the age of children attending primary school and early secondary school. While it is admittedly true that with stress and a heavy workload, children do have lesser time for themselves, it would be exaggerated to say that there is no such thing as childhood anymore.

Children in the colonial period were seen as beings who should adopt Meeting the needs of children, even inventing new ones, became an important element of the consumer economy. Many children had their own rooms, took music or tennis lessons, and were often indulged. Despite children of today's era generally not having to worry about being sold off as slaves or being married off at such young ages, the children of our decade have their own set of burdens and hustles to worry about. Usually, when we think of childhood, we often think of ignorance, naiveté, care-freeness, joy, innocence and peace and laughter. As young adults, we often reminisce about our childhood because it was a period of time when we had no worries and we lived day to day as happy individuals without burdens. Modern societies are described most effectively against the background of what came before them.

The process of modernity is reactive; it's meaning is derived by a comparison with, and by rejection or negation of preceding agrarian and industrial societies. Traditional, or pre-modern societies take as their basic unit the community or the collective. The family constitutes production and consumption as well as socialization, indicative of a rudimentary division of labour. Further, traditional societies.

CHILDREN IN DIGITAL WORLD

Digital technology can also make children more susceptible to harm both online and off. Already vulnerable children may be at greater risk of harm, including loss of privacy. ICTs are intensifying traditional childhood risks, such as bullying, and fuelling new forms of child abuse and exploitation, such as 'made-to-order' child sexual abuse material and live streaming of child sexual abuse. Predators can more easily make contact with unsuspecting children through anonymous and unprotected social media profiles and game forums. New technologies – like cryptocurrencies and the Dark web – are fuelling live streaming of child sexual abuse and other harmful content, and challenging the ability of law enforcement to keep up.

Ninety-two per cent of all child sexual abuse URLs identified globally by the Internet Watch Foundation are hosted in just five countries: the Netherlands, the United States, Canada, France and the Russian Federation. Efforts to protect children need to focus particularly on vulnerable and disadvantaged children, who may be less likely to understand online risks – including loss of privacy – and more likely to suffer harms. While attitudes vary by culture, children often turn first to their peers when they experience risks and harms online, making it harder for parents to protect their children. The potential impact of ICTs on children's health and happiness is a matter of growing public concern – and an area that is ripe for further research and data. Although most children who are online view it as a positive experience, many parents and teachers worry that immersion in screens is making children depressed, creating internet dependency and even contributing to obesity. Inconsistent advice can be confusing for caregivers and educators, underlining the need for more high-quality research on the impact of ICTs on well-being.

Researchers acknowledge that excessive use of digital technology can contribute to childhood depression and anxiety. Conversely, children who struggle offline can sometimes develop friendships and receive social support online that they are not receiving elsewhere. For most children, underlying issues – such as depression or problems at home – have a greater impact on health and happiness than screen time. Taking a 'Goldilocks' approach to children's screen time – not too much, not too little – and focusing more on what children are doing online and less on how long they are online, can better protect them and help them make the most of their time online.

CHILDREN IN DIGITAL ERA

Young people and technology – whether you like it or not, smart devices are in your children's lives and they're here to stay. "Too many of the older generation still believes that the traditional

way of parenting – which they had with their folks – is as effective today as it was yesteryear. But as the changing times require, strategies in leading your kids to the right path should adapt to their ever-evolving environment." If you have now accepted that your guidance as a parent needs to match the requirements of the 'digital era', you are at the right place.

Here are a few things you need to understand about getting involved in your child's digital engagement. 1. You will mentor, not just monitor If you are a boss, you can spy at every little thing your child searches, opens and sends on the Internet. But you are a parent that's meant to teach those lessons so you can sleep well at night knowing they are well-guided.

"The more walls we build, the more we are just creating little hackers who are just trying to get around the fence," said Devorah Heitner, founder of the website Raising Digital Natives.

According to her, mentoring allows parents to create an environment where kids will feel comfortable talking to you about their digital activities. In short, you are to teach and trust. Technology is a purposeful tool; it only depends on how your kids will use it. Teens at present can't be refrained from using gadgets and the Internet because this will pull them a step backward from the requirements of their environment. Schools require research, digital communication and computer skills.

You need to make it clear with your kids that technology is not meant for entertainment alone. If they are starting to change face-to-face connections with other people through so much online socialization, you need to impose a cutback. You need to learn the platform as well. of course, you cannot guide your kids will if you do not know the workings of technology. In this aspect, you can request for their assistance. Engage yourself in what they are engaging in so you can have a first-hand experience and will know what to develop and avoid.

Your children should understand that technology is not outside your authority. Some kids at present tend to respect their parents' authority in things such as doing the chores, being a good student and going home on time. What you need to make them understand is that when it comes to technology, you should also have a hand.

STATE OF THE WORLD CHILDREN

The State of the World's Children began to publish tables of standardized global and national statistics aimed at providing a detailed picture of children's circumstances. Much has changed in the decades since the first indicators of child well-being were presented. But the basic idea has not: consistent, credible data about children's situations are critical to the improvement of their lives – and indispensable to realizing the rights of every child.

FINDINGS AND SUGGESTIONS

Data continue to support advocacy and action on behalf of the world's 2.2 billion children, providing governments with facts on which to base decisions and actions to improve children's lives. And new ways of collecting and using data will help target investments and interventions to reach the most vulnerable children. Data do not, of themselves, change the world. They make change possible – by identifying needs, supporting advocacy, and gauging progress. What matters most is that decision-makers use the data to make positive change, and that the data are available for children and communities to use in holding duty-bearers to account.

CONCLUSION

The information infrastructure offers both promise and peril; promise in the form of extraordinary ease of access to a vast array of information, and peril from opportunities both for information to be reproduced inappropriately and for information access to be controlled in new and problematic ways. Providing an

appropriate level of access to digital IP is central to realizing the promise of the information infrastructure. Ensuring that this appropriate level of access becomes a reality raises a number of difficult issues that in the aggregate constitute the digital dilemma. This report articulates these difficult issues, provides a framework for thinking about them, and offers ways of moving toward resolving the dilemma.

REFERENCES

1. *Apple. Education: Learning with iPad. 2016. Accessed October 19, 2016.*
2. *Blackwell, C.K., Lauricella, A.R., & Wartella, E. (2014). Factors influencing digital technology use in early childhood education, Computers & Education, 77, 82-90.*
3. *Braun, V., & Clarke, V. (2006), Using thematic analysis in psychology, Qualitative Research in Psychology 3, 77-101.*
4. *Brito, R., & Dias, P. (2016), La technologia digital, aprendiziaja y education: Practicas Y percepciones de ninos menores de 8 anos y sus pades, Revisa de la Faculated de Education de Albacete, 31, 23-40.*
5. *Chi MTH. Active-Constructive-Interactive: A conceptual framework for differentiating learning activities.* Topics in Cognitive Science. *2009;1(1):73-105.*
6. *Chiong C, DeLoache JS. Learning the ABCs: What kinds of picture books facilitate young children's learning?* Journal of Early Childhood Literacy. *2012.*
7. *Christensen, P., & James, A. (2008), Research with Children.*
8. *Cook, S. (2016) Integrating technology in early literacy: A snapshot of Community innovation in family engagement.*
9. *Findahl, O. (2013), Swedes and the Internet 2013, Stockholm.*
10. *Hirsh-Pasek K, Zosh JM, Golinkoff RM, Gray JH, Robb MB, Kaufman J. Putting education in "educational" apps: Lessons from the science of learning.* Psychological Science in the Public Interest. *2015;16(1):3-34. 10.1177/1529100615569721.*

11. *Kannass KN, Colombo J. The effects of continuous and intermittent distractors on cognitive performance and attention in preschoolers.* Journal of Cognition and Development. *2007.*
12. *Mueller P a, Oppenheimer DM. The pen is mightier than the keyboard: Advantages of Longhand over laptop note taking.* Psychological Science. *2014;25(6):1159-1168.*
13. *Shifrin D, Brown A, Hill D, Jana L, Flinn SK. Growing up digital: Media research symposium.* American Academy of Pediatrics. *2015:1-7. Accessed October 19, 2016.*
Tudge and Hogan, 2005, p. 112.
14. *Zosh JM, Brinster M, Halberda J. Optimal contrast: Competition between two referents improves word learning.* Applied Developmental Science. *2013;17(1):20-28.*

DIGITALIZATION AND HEALTHCARE INDUSTRY

***Dr. V. MALAR VIZHI**
Assistant Professor of Commerce,
Vivekananda College, Agasteeswaram,
Affiliated to Manonmaniam Sundaranar University,
Abishekapatti, Tirunelveli, Tamil Nadu, India.

ABSTRACT

Digitalization is the cause of large-scale and sweeping transformations across multiple aspects of business, providing unparalleled opportunities for value creation and capture, while also representing a major source of rick. Business leaders across all sectors are grappling with the strategic implications of these transformations for their organizations, industry ecosystems, and society. The economic and societal implications of digitalization are contested and raising serious questions about the wider impact of digital transformation.

Keywords: *Health Care, Hospital, Human*

INTRODUCTION

Some people say that it is the quality of life and not its quantity that matters. Perhaps it is true because healthcare professionals focus on giving timely and accurate care to their patients. And relying on technology is the only way do it quickly. Technology can save lives - it has been proved so, time and again. Luckily the scope of what technology can do to save lives is increasing at a considerably rate.

We have attained a position where Digital Transformation is taking place rapidly in the healthcare industry. The focus is to provide exemplary patient experience, and the pharmaceutical

companies and clinical care centers have made drastic changes through technological innovation and communication.

Diseases affect the quanlity of life, and millions and millions of people are afflicted with all sorts of diseases globally. The changes technology has rendered in the healthcare system has improved the patients' health and their quality of life, but it has also affected the global economy in a positive manner.

Digital Transformation would Revolutionize the HealthCare Industry DT revolutionizes healthcare in such strong ways that it touches everything, right from patient registration to smart diagnosis, even in the field of coming up with self-car tools. The entire healthcare industry has transformed and metamorphosed into something magical; value-based care and positive outcomes have turned out to be the bedrocks in the next-gen healthcare. Patient have become active participants in their own health activities; they are no longer passive individuals, but play a full role by demanding involvement through knowledge sharing and responsibility.

The healthcare industry tend to adopt a broader definition, also including other key actions related to health, such as education and training of health professionals, regulation and management of health services delivery, provision of traditional and complementary medicines, and administration of health insurance.

The National Health System creates excellent patient outcomes and mandates universal coverage but also suffers from large lag times for treatment. The Health and Social Care Act 2012 only proved to fragement the system, leading to high regulatory burden and long treatment delays.

OBJECTIVES OF THE STUDY

- To understand about Digitization and healthcare industry.
- This study aimed to understand how practitioners envisioned digital innovation in healthcare to shed light on debates about how to improve innovation efficiency.

- To understand how practitioners envisioned digital innovation in healthcare
- To understand Hospital and Human Health activities.

METHODOLOGY

Details and information collected for the purpose of the study was collected from the secondary sources viz, websites, public artiest these and desecration, journals, magazines etc.

MEANS FOR THE HEALTHCARE INDUSTRY

Digital Transformation is a trend that can be materialized only when the organizations can rethink business processes. In the simplest terms, DT is all about using various forms of digital technologies so it helps the customer (in this case the patient) lead a better life. The need of the patient becomes the focal point of the business. So you have to put their needs at the center, and come out with different ways in which you can make their lives better.

The idea is to make the patient become active stakeholders in their own health plan. Hence they are alert to the changes in their own health, monitor vital signs, are aware of what they should do in order to lead quality life and learn to take preventive actions against chronic illnesses. In fact, it allows the patient to become a responsible individual in the matters of their own health. And this is done through patient engagement in latest technologies. Telemedicine is a perfect example of this trend.

There is a hitch, however. Unfortunately, the idea of using technology to provide better care to patients renders several healthcare organizations to think that it is an impossible idea. They feel that it is something that will take ages to catch up. Tight budgets and limited resources also deter them from making maximum use of technology.

Healthcare organizations might be intimidated by the huge amounts of data they'll have to deal with, as the data that flows through their systems is largely unstructured and unmanaged. However, several organizations have come forward and attempted to

maneuver and innovate by using the most latest technologies and methodologies to sift through this data.

The very idea of sifting through hordes of data can be intimidating, but it can be possible when you focus on the initiatives that help minimize the efforts and costs, but brings out real results that you can use. Hence, it is important for the organizations to bring out versatile devices that save time, reduce printing, and at the same time streamline processes that ease out the day-to-day operations in healthcare centers; examples would be - overseeing and chronicling patient records, facilitating patients' culmination of structures, etc.

DIGITAL TRANSFORMATION WOULD REVOLUTIONIZE THE HEALTHCARE INDUSTRY

DT revolutionizes healthcare in such strong ways that it touches everything, right from patient registration to smart diagnosis, even in the field of coming up with self-care tools. The entire healthcare industry has transformed and metamorphosed into something magical; value-based care and positive outcomes have turned out to be the bedrocks in the next-gen healthcare. Patients have become active participants in their own health activities; they are no longer passive individuals, but play a full role by demanding involvement through knowledge sharing and responsibility.

TO UNDERSTAND ABOUT – DIGITIZATION AND HEALTH CARE INDUSTRY

Stunning progress in developing new medical technologies and treatments has meant that a number of previously fatal diseases can now be managed or treated. Amazing improvements have been made in genetic sequencing, while the cost of whole-genome seauencing has fallen from $1 million to $1,000 since 2001.18 There have also been advances in genomic, gene-editing techniques, the application of proteomics to gene therapies and the development of personalized treatments. Some of these scientific breakthroughs have piggybacked on wider technology trends, such as advances in robotics and 3D printing, faster data the lower cost of data storage at scale. The power of big data, for instance, has enables scientists to take new approaches to drug discovery or large-scale population

studies, such as the UK Biobank. 19 Dispite these impressive scientific breakthroughs, it is acknowledge in the healthcare industry that more efforts needs to be made to develop new technologe and introduce more digital innovation. A recent survey of healthcare chief executives found an understanding of the importance of digital technologe in healthcare and an enthusiasm to innovate with it.20. But a big gap exists between where chief executive officers are now and where they want to be. More than 90 percent of those interviewed wanted to change their technology investments or find better ways of harnessing big data, but only a third had actually upgraded their technology or analytics capabilities. Citizens feel strongly that it is important for their healthcare providers to offer electronic capabilities, but in many cases, these services are not available. Citizens' desire for digital healthcare services has not always been matched by action from the industry, with two-thirds of US physicians reluctant to allow patients to access their own health records. 21 Research commissioned by Accenture in 2013 found that only 37 percent an online services for refill prescriptions and only 23 percent of healthcare providers offered electronic access to medical records.22.

The recent progress toward digitization in healthcare has created opportunities for new entrants to disrupt the industry. As in many other sectors, digital adoption is beginning to blur traditional industry boundaries. Healthcare is not an exception, with a deluge of nontraditional and traditional players now competing side by side. Pharmaceutical and medical technology firms are extending 'beyond the pill' to be much more integrated with healthcare services, sometimes competing directly with them. Fresenius Medical Care and DaVita Healthcare Partners, for instance, have pursued vertical integration of the dialysis segment and are now expanding their presence to offer clinical services that both complement and compete against those provided by traditional service providers. DaVita's acquisition of Healthcare Partners for $4.4 billion in 2012 was a clear move to expand resources beyond a product- and dialysis focused service into integrated care management.24 Other examples include traditional consumer technology companies, such

as Samsung, Google and Apple, which are using their differentiated connection with the consumer to create new offerings that remagine the healthcare status quo. As of 2014, the Fortune 500 included 14 traditional healthcare companies, with 24 new healthcare entrants having their roots in the telecommunications, consumer products, finance, technology or retail industries.25 In fact more than half of healthcare CEOs anticipate that their companies will have to diversify into new sectors within the next three years, and 29 percent of them had already led their enterprises into new industries. This expansion can lead to the creation of new ecosystems that incorporate the services of legacy healthcare providers, non-healthcare organizations, device manufactures and, in some cases, startup digital health companies.

DIGITIZATION AND HEALTH CARE INDUSTRY

A truly digital healthcare industry would revolutionize diagnosis and treatment, with a shift in focus to prevention and management. With the widespread introduction and seamless coordination of digital apps and connected devices, the healthcare industry could be transformed from a reactionary system to one that is proactively centered on the patient and driven by data. The most tangible, expected changes will be that care will move closer to the home, and citizens will have more responsibility for managing their own health and well being. Perhaps the most noticeable changes for a citizen would be that significantly fewer trips to a physician or a hospital would be required. Citizens would become more engaged to manage their own health and care. Through self-care and monitoring of vital signs, an individual's health could be continuously tracked. If needed, a virtual care consultation could be arranged, so that citizen could receive medical advice without leaving their homes. Should further medical care be necessary, the treatment plan would be personalized for each individual, maximizing the chances of a successful outcome. Digital healthcare would have a profound impact on the healthcare industry itself. With citizens empowered to manage their own care, valuable resources in the health system would be freed up. Intelligent systems would allow lower skilled

workers to operate at the top of their licensure, carrying out more routine monitoring and virtual consultation. Higly skilled and highly paid healthcare professionals would be able to focus their efforts on more complex and higher-value cases. Data-driven clinical decision support and personalized treatment plans would have higher success rates, cutting down on a waste. Digital healthcare has the potential to bring about not just small improvements in efficiency, but a step change in the productivity of the healthcare industry along with a significant impact on health outcomes. The 'future of health' scenario illustrates in more detail how the pervasive and aeamless use of apps and connected devices could transform both the patient's experience and outcomes that patients receive, but it will not become reality overnight. With that in mind, this analysis has focused on developments that are likely to happen in the short to medium term. From an analysis of the powerfull macro trends shaping healthcare, numerous interviews with through leaders from various sectors of the healthcare industry, and secondary research, for essential digital themes have been identified: smart care, care anywhere, empowered care and intelligent healthcare enterprise. These four themes, it is argued herein, will be of crucial importance as the global healthcare system id transformed over the next 5 to 10 years.

GENOMICS HEALTHCARE

The study of genomic research has come a long way, and this wave started with discovery of DNA more than a century ago. The advances in technology and computers have helped in sequencing genomes faster and in a cost effective manner. This has helped scientists to understand a person's genetic profile minutely and thereby administer treatments that could lead to better cures.

Doctors, clinicians and specialists have started using genomic sequencing to reach a better diagnosis and treat their patients much more accurately. Increase in technology and computing power has made it easier for scientists to experience the true capability of human DNA; paving the way for complete and entirely personalized form of testing and treatment. As the treatment

provided is personalized, this could really cover a huge range of diseases and provide enhanced treatments to patients.

Many companies and universities researched on genomes and genetics. One company worth mentioning here would be the Hudson Alpha, a biotechnology institute that brought an impressive array for lifesaving discoveries leading to the diagnosis and treatment of a diseases.

As research could be data-intensive, the company had to think about how they are going to process all the data. More than 6 betabytes of data had to be managed, stored and analysed in a single year. They seriously had to rethink on the way they were implementing IT in their organization if they wanted to look after their research goals.

Hudson Alpha's first step in the digital transformation was taken when they deployed private cloud for all their research projects. This became their IT foundation, but they still needed something more powerful, flexible and scalable to accommodate their ever-growing research need. Eventually they bagged dramatic results with using the right kind of infrastructure - combination of hyper converged and composable infrastructure. This led to a number of advantages including (1) increased storage capacity, (2) remarkable cost reduction (3) reduced provisioning time from four days to a couple of hours.

The next step in digital transformation happened when they began to embrace public clouds. The initial apprehensions about privacy, regulations and security were soon met with. This was a boon because the company had many government grants to conduct researches, and they were able to try new treatment theories and create ideas right in the public cloud, without taking the resources away from the private cloud.

Eventually, the company was ready to take the next step - hybrid IT. Hudson Alpha is working with HP to make maximum use of public cloud, private cloud and on-premises IT separately and by moving applications from one model to another.

BIG DATA USED IN MEDICINE

Healthcare industry is one of the fields where you can use big data to its maximum potential. It can rival trends that were not possible in the past, so you can say Big Data is all about delivering Big Insights. Big data analysis has evolved to be a major boon both for managing the health of the patient and for the business angle of the healthcare organizations. DNA analysis tests and data collected study of the patient, learn about their lifestyles, and that of similar patient to come up with treatment strategies.

Big data plays heavily in solving the limitations that the healthcare industry faces. The medical and pharmaceutical field can gain a lot when they understand the biology of diseases. It is possible to actually do this with the help of Big Data. Because Big Data can collect all the data information on what constitutes a disease – right from DNA, proteins, and metabolites to organs, organisms, cells, tissues, and ecosystems. And by solving the limitations, big data can help build better health profiles and predictive models around patients to reach better diagnosis and treat diseases.

It is important to consider the factors in which the number of doctors and patients grow in a center. Let's take the case of Westmed Medical Group in Westchester Country in New York. The number of physicians and patients grew from 16 to 250 over the years, and of course, the number of patients also steadily increasd, to 250,000 patients, with an annual revenue of $285 million. When a practice grows, it is imperative to have some sort of method to analyze thousands of processes and workflows, streamline them, reduce unnecessary testing, improve patient satisfaction and so on. Big data helped the company do all these and brought better patient outcomes.

HOSPITAL AND HUMAN HEALTH ACTIVITIES

In 2017, healthcare costs paid to hospitals, physicians, nursing homes, diagnostic laboratories, pharmacies, medical device

manufacturers and other components of the healthcare system, consumed 17.9 persent of the Gross Domestic Product (GDP)of the United States, the largest of any country in the world. It is expected that the health share of the Gross domestic product (GDP) will continue its upward trend, reaching 19.9 percent of GDP by 2025. In 2001, for the OCED countries the average was 8.4 percent with the United States (13.9%), Switzerland (10.9%), and Germany (10.7%) being the top three. Us health care expenditures totaled US$2.2 trillion in 2006. According to health Affairs, US$7, 498 be spent on every woman, man and child in the United States in 2007, 20 percent of all spending. Costs are projected to increase to $12,782 by 2016.

Image Credit: Timothy ruban – Own work, CC BY – SA 3.0

To administer treatments by understanding the diseases at cellular level can be possible with digital transformation. This futuristic treatment is done through tiny technology in the form of chips to ensure the patients gets only safe drugs. The patient no longer has to be the testing ground for experimental drugs anymore. And this is an incredible achievement, considering the fact that the human body is the most complex one off nature's creations.

Wyss Institute, a Harvard unit has made incredible advances in this field, by working on biologically inspired engineering projects. They created tiny versions of chips that were so tiny that they looked like USB drives. They created a number of chips in this manner for example, lungs that mimics human breathing and works exactly like the human lung.

Similarly, they made chips of other organs like kidney, heart, gut, bone marrow and so on. The organs on the chip device can provide the cells with nutrients and oxygen, just as the cells in the human body are sustained through blood. These cells grow and respond exactly like the real cells in the human organ, and definitely much better than the cells grown in petri disches.

The Wyss Institute tested the chips successfully and scientists would no longer have to do animal testing. Now drugs can be safely tested before they are tried on the patient. And scientists no longer have to worry about the ethical concerns as well.

ADVANTAGES

Healthcare is typically a broad term that is used to describe a variety of careers that cater to health services to those who are in need of them. However, the benefits that come from healthcare jobs make it popular among graduates who are looking to make the switch to a more profitable career.

Below, are the top seven advantages of working in the healthcare industry that is not common among other job fields.

INCREASED INDUSTRY GROWTH

According to the United States Bureau of Labor Statistics, the healthcare industry is expected to grow exponentially from now until 2020. Plus, nearly eight out of the 20 fastest growing careers belong in the healthcare industry. With the number of careers losing positions, health care continues to grow. This fact has actually led many professionals to the healthcare industry and increased enrollment rated in medical courses.

BETTER PAY AND IMPROVED BENEFITS

Since the healthcare industry is always seeking new workers, pay is nearly always better, along with improved benefits compared to other industries. In fact, the Bureau of Labor Statistics states that healthcare admin jobs offer up nearly $85,000 annual salary. Some of the highest-paid specialists in the medical field, like neurosurgeons, make an average of $609,639 a year. Plus, the benefits that are offered are much higher than positions in other industries.

A STIMULATING WORK ENVIRONMENT

Unfortunately, most work environments are often boring and uneventful. Unlike healthcare jobs, most careers are not

challenging and repetitive. However, as a healthcare professional, you get to have a fast-paced workday with a constantly changing atmosphere. This type of work environment leaves professionals feeling a sense of fulfillment. Obviously, this cannot be said for a variety of positions in other industries.

MANY DIFFERENT CAREER OPPORTUNITIES

No matter where you start in the healthcare field, whether it's as an assistant, volunteer, or intern, you have the choice to pick what field you want to pursue. There are so many different career options within the healthcare industry. You will likely find at least one that you can enjoy.

You can even change your mind multiple times before making a final career decision, without losing any pre-existing respect in your field. In fact, most hospitals even offer their workers to cross train into different fields to build up their experience and try new things. So, even if you're just an intern now, you have a whole lifetime to experience each field and decide what your specialty will be. Especially with the rapid growth of jobs in the healthcare industry, there are a variety of positions you can amount to.

OPPORTUNITY TO TRAVEL

People need qualified medical professionals all around the country and all around the world. Your career is not limited by geography. There are work opportunities all around the world from large cities to developing communities. Every field in the medical industry is in high demand all around the world. If you have ever dreamed of traveling the globe, you can! And, you can spread medical care, make money, and help citizens globally at the same time.

FLEXIBLE HOURS

Since hospitals and other healthcare centers provide care 24/7, they need people to work for all of those hours. This means that you can likely schedule your work around your personal life. Say goodbye to the nine to five work day. If for example, you need

to pick your children up after school, you can work later in the day. This will allow you to become more involved in your family life and create a better and more fulfilling work-life balance. This non-standard work schedule can also be of use if you ever decide to go back to school to get a more advanced degree.

THE CHANCE TO HELP PEOPLE

Very few other careers give people the opportunity to do as much good as the healthcare industry does. This desire to help others is what motivates most people in the industry to do their jobs day in and day out with a smile on their faces.You can be a truly compassionate person, all while making a pretty good living. It does not matter what job you choose within the industry, you will be helping patients all the same to get the care that they need. Even in an administrative position, you will be helping people. This is perhaps the best reason to work in the healthcare industry.

There are so many benefits associated with working in the healthcare industry. Whether you work as an administrator or a surgeon, there are so many advantages that come with these positions. From the positive job outlook and high salaries to the better work-life balance and opportunity to do good, you can't go wrong with a healthcare career.

DISADVANTAGES HEALTHCARE

1. **Digital Divide among Patients**:

Hospitals need to be accessible to all types of patients regardless of one's socio-economic status. There are still individuals who do not have a smartphone or even a computer to contact through e-mails on updates on a faster pace. According to research of Hospitals and Health Networks (2009), hospitals with high percentage of poor patients that lag behind in developing digital technology than hospitals with low percentage of poor patients that it is difficult for administrators to change their system to become more digital. This issue of the digital divide could potentially lead to health care disparities.

2. **Lack of Information Control**:

   There have been many complaints and concerns from hospitals that there are lack of control of how an individual could get access to certain information and who could potentially get a hold of other people's information. Technology has gotten advanced to a point where anyone could possibly collect large amounts of information without people's knowledge. This issue has lead to many concerns over confidentiality of one's private information.

3. **Safety**:

   Hospitals have to abide by laws to protect patients from giving their patient's personal information to the wrong people. There are many ways people could potentially get access to one's information if anyone in the hospital takes pictures, texting to other people about patient's information, or any other individual could potentially tap into any hospital employee phone.

4. **Privacy**:

   The main issue with mobile technology is that it is challenging for health administrators to use mobile technology taht the hospital requires many privacy laws. 35% of companies is a lot of companies that are not being strict on medical privacy which could lead to many problems for patients and their families. Patients may want their certain individuals in their lives like their boss to not know about their health conditions which could be a disadvantage on their jobs or family members that could take advantage of the information that the patient does not wish to share with.

However, we can clearly see a huge leap forward in the advancement of medical technology with ever-increasing growth overall.

CONCLUSION

Healthcare companies from around the world are turning digital technologies into strategic assets. A few of the ambitious ones are bridging the between digital IT and legacy by indulging in

complex systems transformations. They are performing their own experiments to make the best of data and boost the speed of R&D. At the rate digital transformation is moving now, we can rightly assume that the patient will be sitting in the driver's seat soon enough and they are likely to receive the best treatment at reduced costs, thereby increasing life expectancy too.

Digital is supporting and accelerating the systemic shift to value-based healthcare. New intelligence, in hardware and other objects, is bridging the gap between the digital and physical worlds. Hospitals, physicians' offices and payers are accessible with a click, tap or scroll. Highly connected hardware components, along with smart sensors and devices, help payers and providers give consumers what they want: better health outcomes at lower cost, coupled with convenience and a better experience. Today, delivering consumer health outcomes offer a distinct competitive advantage; in the next few years, it will become a catalyst for transformation. Beyond that, it will be nothing less than a strategy for survival.

REFERENCE

1. *Lupton, D. Digital health: Critical and cross-disciplinary perspectives, London: Routledge, 2017.*
2. *Powell J, Newhouse N, Boylan A-M, et al. Digital health citizens and the future of the NHS. Digital Health 2, http://journals.sagepub.com/doi/full/10.1177/2055207616672033 (2016, accessed 31 August 2017).*
3. *EY Sweeney. Digital Australia: State of the nation. The 2017 edition, https://digitalaustralia.ey.com (2017, accessed 21 August 2017).*
4. *Hendy J, Chrysanthaki T, Barlow J, et al. An organisational analysis of the implementation of telecare and telehealth: the whole systems demonstrator. BMC Health Services Research12, http://dx.doi.org/10.1186/1472-6963-12-403 (2012, accessed 31 August 2017).*

5. *Greenhalgh T, Hinder S, Stramer K, et al. Adoption, non-adoption, and abandonment of a personal electronic health record: case study of HealthSpace. BMJ 341, http://www.bmj.com/content/341/bmj.c5814 (2010, accessed 12 July 2017).*
6. *Sarkar, U, Karter, AJ, Liu, JY The literacy divide: health literacy and the use of an internet-based patient portal in an integrated health system—results from the Diabetes Study of Northern California (DISTANCE). J Health Common 2010; 15: 183–196.*
7. *Mort, M, Smith, A. Beyond information: intimate relations in sociotechnical practice. Sociology 2009; 43: 215–231.*
8. *Edwards, L, Thomas, C, Gregory, A Are people with chronic diseases interested in using telehealth? A cross-sectional postal survey. J Med Internet Res 2014; 16: e123.*
9. *Greenhalgh, T, Wherton, J, Sugarhood, P What matters to older people with assisted living needs? A phenomenological analysis of the use and non-use of telehealth and telecare. Soc Sci Med 2013; 93: 86–94.*
10. *Procter, R, Wherton, J, Greenhalgh, T Telecare call centre work and ageing in place. CSCW 2016; 25: 79–105.*
11. *IMS Institute for Healthcare Informatics . Patient adoption of Health: use, evidence and remaining barriers to mainstream acceptance, Parsipanny, NJ: IMS Institute for Healthcare Informatics, 2015.*
12. *Van Velthoven M and Powell J. Do health apps need endorsement? Challenges for giving advice about which health apps are safe and effective to use. Digital Health 3, http://dx.doi.org/10.1177/2055207617701342 (2017, accessed 31 August 2017).*
13. *Jutel A and Lupton D. Digitizing diagnosis: a review of mobile applications in the diagnostic process. Diagnosis 2, https://www.degruyter.com/view/j/dx.2015.2.issue-2/dx-2014-0068/dx-2014-0068.xml (2015, accessed 2 December 2015).*

14. *Wicks P and Chiauzzi E. 'Trust but verify' – five approaches to ensure safe medical apps. BMC Medicine 13, http://www.biomedcentral.com/1741-7015/13/2 (2015, accessed 8 October 2015).*
15. *Thomas, J, Barraket, J, Wilson, C Measuring Australia's digital divide: the Australian Digital Inclusion Index, Melbourne: RMIT University, for Telstra, 2017.*
16. *Christenson, Clay, The Innovator's Prescription: A Disruptive Solution for Health Care, McGraw-Hill, 2008.*
17. *World Health Statistics 2015, World Health Organization,*
18. *Ibid.*
19. *"The Global Burden of Disease: Generating Evidence, Guilding Policy", Institute for Health Metrics and Evaluation.*
20. *"National health accounts – estimates of national health expenditure", World Health Organization, 2015.*
21. *"Global Outlook: Health,"The Economist Intelligence Unit, March 2014; "The Concentration of Health Care Spending", National Institute for Health Care Management, July 2012.*
22. *"Japan's Aging Population Woes Worson with New Record Low Birth-Rate in 2014", TIME, January 2, 2015.*
23. *"World Population Ageing 2013", United Nations, 2013.*
24. *"IDF Diabetes Atlas: Sixth Edition", International Diabetes Federation, 2014.*
25. *"Chronic Disease Prevention and Health Promotion", Centers for Disease Control and Prevention, May 18, 2015.*
26. *"The High Concentration of U.S. Health Care Expenditures", Agency for Healthcare Research and Quality, Research in Action, no. 19, June 2006.*

HISTORY OF DIGITALIZATION IN INDIA

***Dr. S. RAJAPRIYA**
Assistant Professor, Department of Commerce,
Vivekananda College, Agasteeswaram, Kanyakumari district.

ABSTRACT

Digital India is a campaign launched by the (Government of India) to ensure the Government's services are made available to citizens electronically by improved online infrastructure and by increasing Internet connectivity or by making the country digitally empowered in the field of technology. The initiative includes plans to connect rural areas with high-speed internet networks. Digital India consists of three core components. The development of secure and stable digital infrastructure, delivering government services digitally, and universal digital literacy.

Keywords: *Digital India, E-Commerce*

INTRODUCTION

Launched on 1 July 2015 by Indian Prime Minister Narendra Modi, it is both enabler and beneficiary of other key Government of India schemes, such as BharatNet, Make in India, Startup India and Stand up India, industrial corridors, Bharatmala, Sagarmala, dedicated freight corridors, UDAN-RCS and E-Kranti. As of 31December 2018, India had a population of 130 crore people (1.21 billion) 123 crore (1.23 billion) Adhaar digital biometric identity cards, 121 crore (1.21 billion) mobile phones, 44. Crore (440 milion) smartphones, 5 crore (50 million) internet users up from 481 million people (35% of the country's total population) in December 2017, and 51 percent growth in e-commerce.

OBJECTIVES

1. To understand about History of Digitalization in India.

2. To study the impact of Digitalization in India.

3. To explore the impact of personality used the Digitalization in India

METHODOLOGY

Details and Information for the purpose of the study was collected from the secondary sources viz, Websites, published articles, thesis and dissertation, Journals, Magazines, etc.,

HISTORY OF DIGITALIZATION IN INDIA

Digital India was launched by the Prime Minister of India Narendra Modi on 12015 with an objective of connecting rural areas with high-speed Internet networks and improving digital literacy. The vision of Digital India programme is inclusive growth in areas of electronic services, products, manufacturing and job opportunities. It is centred on three key areas - digital infrastructure as a utility to every citizen, governance and services on demand, and digital empowerment of citizens.

1.Digital locker system aims to minimize the usage of physical documents and e-documents will be done through repositories thereby ensuring the authenticity of the documents online.

2.My Gov.in has been implemented as a platform for citizen engagement in governance, through a "Discuss" , Do and "Disseminate" approach. The mobile App for MyGov would bring these features to users on a mobile phone

3.Swachh Bharat Mission (SBM) Mobile app would be used by people and Government organizations for achieving the goals of Swachh Bharat Mission

4.esign frame work would allow citizens to digitally sign a document online using Aadhaar authentication

5.The online Registration System (ORS) under the e-Hospital application has been introduced. This application provides important services such as online registration, payment of fees and appointment, online diagnostic reports, enquiring availability of blood online etc.

6.National Scholarships portal is a one stop solution for end to end scholarship process right from submission of student application, verification, sanction and disbursal to end beneficiary for all the scholarships provided by the Government of India.

7.Deity has undertaken an initiative namely Digitize India platform (DIP) for large scale digitization of records in the country that would facilitate efficient Delivery of services to the citizens.

NEW DIGITAL SERVICES

Some of the facilities which will be provided through this initiative are Bharth net, digital locker, e-education, e-health, e-sign, e-shopping and national scholarship portal. As part of Digital India, Indian Government planned to launch Botnet cleaning centers.

National e-Governance plan aimed at bringing all the front – end government services online.

MyGov.in I a platform to share input and ideas on matters of policy and governance. It is a platform for citizen engagement in governance, through a “Discuss”, “ Do” and Disseminate” approach.

UMANG (Unified Mobile Application for New-age Governance) is a Government of India all-in-one single unified secure multi-platform multi – lingual multi-service freeware mobile app for accessing over 1,200 cetral and state government services in multiple Indian Languages over A ndroid, Ios , windows and USSD (feature phone) devices, including services such as AADHAR,

DigiLocker, Bharat Bill Payment system, PAN, EPFO services, PMKVY services, AICTE, CBSE, TAX and fee or utilities bills payments, education, job search, tax, business, health, agriculture, travel, Indian railway tickets bookings, birth certificates, e-District, e-Panchayat, police clearance, passport, other utility services from private companies and much more.

e-Sign framework allows citizens to digitally sign a document online using Aadhar authentication.

Swachh Bharat Mission (SBM) Mobile app is being used by people and Government organization for achieving the goals of Swachh Bharat Mission.

eHospital application provides important services such as online diagnostic reports, enquiring availability of blood online etc.,

Digital attendance: attendance gov.in was launched by PM Narendra Modi on 1 July 2015 to keep a record of the attendance of government employees on a real-time basis. This initiative started with implementation of a common Biometric Attendance System (BAS) in the central government offices located in Delhi

BACK END DIGITALIZATION

Black money eradication : The 2016 Union budget of India announced 11 technology initiative including the use of data analytics to nab tax evaders, creating a substantial opportunity for IT companies to build out the systems that will be required, Digital Literacy mission will cover six crore rural households. It is planned to connect 550 farmer markets in the country through the use of technology.

FACILITIES TO DIGITALLY EMPOWER CITIZENS

Digital Locker facility will help citizens to digitally store their important documents like PAN card, passport, mark sheets and degree certificates. Digital Locker will provide secure access to

Government issued documents. It uses of physical documents and enables the sharing of verified electronic documents across government agencies. Three key stakeholders of Digi Locker are citizen, Issuer and requester.

BPO and job growth : The government is planning to create 28,000 seats of BPOs in varies states and set up at least one Common service centre in each of the gram panchayats in the state.

e-Sampark Vernacular email service : Out of 10% English speaking Indians, only 2% reside in rural areas. Rest everyone depends on their vernacular language for all living their lives. However , as of now, email addresses can only be created in English languages. To connect rural India with the Digital India, the Government of India impelled email services provider giants including Gmail, office and Rediff to provide the email address in regional languages. The email provider companies have shown positive sign and is working in the same process. An Indian-based company, Data xgen Technologies Pvt Ltd, has launched world's first free linguistic email address under the name 'DATAMAIL' which allows creating email ids in 8 Indian languages, English, and three foreign languages – Arabic , Russian and Chinese. Over the period of time the email service in 22 languages will be offered by Data XGen Technologies.

VISION AREAS OF DIGITAL INDIA

The Digital India programme is centred on three key vision areas:

Digital Infrastructure as a core utility to Every Citizen

Governance and Services on Demand

Digital Empowerment of Citizens

DIGITAL INFRASTRUCTURE AS A CORE UTILITY TO EVERY CITIZEN

- Availability of high speed internet as a core utility for delivey of services to citizens
- Cradle to grave digital identity that is unique, lifelong, online and authenticable to every citizen
- Mobile phone & bank account enabling citizen participation in digital & financial space
- Easy access to a Common service centre
- Shareable private space on a public cloud
- Safe and secure cyber-space

GOVERNANCE AND SERVICES ON DEMAND

- Seamlessly integrated services across departments or jurisdictions
- Availability of services in real time from online & mobile platforms
- All citizen entitlements to be portable and available on the cloud
- Digitally transformed services for improving ease of doing business
- Making financial transactions electronic & cashless
- Leveraging Geospatial information Systems (GIS) for decision support systems & development

DIGITAL EMPOWERMENT OF CITIZENS

- Universal digital literacy
- Universally accessible digital resources
- Availability of digital resources/services in Indian Languages
- Collaborative digital platforms for participative governance
- Citizens not required to physically submit Govt. documents / certificates

DIGITAL INDIA NINE PILLARS OF DIGITAL INDIA

1.Broadband Highways

2.Universal Access to phones

3.Public internet Access Programme

4.E-Governance – Reforming government through Technology

5.ekranti – Electronic delivery of services

6.Information for all Electronic Manufacturing

7.Electronics Manufacturing – Target NET ZERO imports

8.IT for jobs

9.Early Harvest Programmes DIGITALINDIA pillar

DIGITAL TRANSFORMATION IN INDIA

The societies operate and interact with each other has drastically changed with the advent of the digital revolution. Over the Years, the impact of technology has been profound, not just in terms of making our lives easier, but also in terms of our approach to the way we carry out tasks, solve problems and resolve issues.

There is no doubt that our leaders understand the role that technology can play in realizing the vision for India's growth – it is at the core of the Digital India programme and a key driver across all plans devised by the Indian Government over the last two years. The government recognizes the transformative power of technology and sees it as an enable for the change that we all seek-be it in delivering better citizen services, digitizing education records, efficient and productive functioning, or using technology to provide a new social security platform.

BRINGING MUCH NEEDED INFORMATION TO FARMERS

Agriculture is the backbone of the Indian economy. The sector is the largest generator of employment in the country, and accounts for 1 percent of our GDP and over 10 percent of our exports. However, changing Weather patterns have resulted in millions of farmers facing an uncertain future due to crop failure. We have partnered with ICRISAT (International Crop Research Station for Semi-Arid Tropics – a United Nations agency) to analyse volumes of data on weather forecasts, local rainfall and soil conditions. This data was analysed to develop a "Sowing Date" application that tells farmers the right sowing date to maximize their yield

Access to this platform for farmers was simplified by providing information to farmers via SMSes in Telugu. In addition, we also collaborated with ICRISAT for the Government of Andra Pradesh on another solution—a personalised village Advisory Dashboard, developed using Power BI tools- to provide an instant overview across several environmental factors that determine a healthy crop yield. The pilot was conducted at the start of the kharif season in Devenakonda village, located in the Kurnool district of Andhra Pradesh.

CONCLUSION

The digital India is a good movement for the development of our nation. The overall Government implementation, Digitalization is the one of major future for India to sustain the world level improvement. The Digitalization growth and development can be realized through supporting and enhancing elements such as literacy, basic infrastructure, and overall business. A digitally connected India can help in improving social and economic condition of people through development of non-agricultural economic activities apart from providing access to education, health and financial services.

REFERENCE

1. *www.Digital Evolution in India.com*
2. *www.Digital in India.com*
3. *www.Makel in India.com*
4. *www.Meity gov India.com*
5. *www.India-gov-in Emagazine.com*
6. *www.Electronics in India.com*
7. *www.National-Governanceplan.com*

DIGITALISATION AND ENTREPRENEURSHIP

***Mrs. S. RAJA PRATHIBA**
(Reg.No:17221291012002) Ph.D Research Scholar in Commerce
Manonmaniam Sundaranar University, Tirunelveli

ABSTRACT

Digital Entrepreneurship represents a joining of traditional entrepreneurship with an emphasis on new technologies, the opportunities created by these technologies, and new business forms. By design, our approach integrates the perspective of stakeholders from different industries including Computing, New Media, Business, Science, and Engineering.

Keywords: *Entrepreneurship, Digitalization*

INTRODUCTION

The Digital Entrepreneurship group endeavors to promote its field of study through a number of activities including: Mentoring new student and faculty ventures that leverage digital technology Conducting Academic Research relevant to digital entrepreneurship Delivering the interdisciplinary digital entrepreneurship course and program of study Developing new curriculum to support the growth of digital entrepreneurship.

Digital entrepreneurship is broadly defined as creating new ventures and transforming existing businesses by developing novel digital technologies and/or novel usage of such technologies, (European Commission, 2015). Digital entrepreneurship has been viewed as a critical pillar for economic growth, job creation and innovation by many countries including the Member States of the European Union. We argue that a nation's digital entrepreneurial capacity depends largely on digital entrepreneurial behaviour, culture, and strategies as well as a supportive innovation ecosystem

in which governments, industry, business, educational institutions and NGOs (non-government organizations) work together. Therefore, a holistic and integrative approach is needed. This study aims to explore the emerging concept of digital entrepreneurship from multiple disciplinary perspectives, namely, information technology and systems, entrepreneurship and management, as well as contextual political/legal and socioeconomic factors and their impacts in a systemic and integrative way. For that purpose, the paper develops a conceptual model to study digital entrepreneurship drawing on current literature and three well-established theories – social network theory, social capital theory and institutional theory. The model addresses five fundamental research questions of digital entrepreneurship, thus leading to a better understanding of the concept and practice of digital entrepreneurship.

OBJECTIVES OF THE STUDY

This study aimed to establish the understanding and knowledge of digitalization of entrepreneurship, and how it can be used by rural entrepreneurs for the survival and growth, and its implications.

LITERATURE REVIEW

Such challenges lead to the success of ambitious start-ups remaining low, with factors such as market sizes, government policies and geographical profiles continuing to influence their long-term performance. There is ostensibly little difference between rural and urban enterprises in terms of their structure, of how such businesses are organised and managed, and of how the characteristics of individual entrepreneurs are exhibited. Thus, it would appear that there is no specific category for, or definition of, rural entrepreneurs, beyond being individuals who manage business ventures in rural settings. Rural areas are, however, no longer found to be dominated by employment in agriculture and production farming but cover a kaleidoscope of economic activities which

increasingly mirror those found in more urban areas.

METHODOLOGY

Details and Information for the purpose of the study was collected from the secondary sources viz., websites, published articles, thesis and dissertation, journals, magazines etc…..

DIGITALIZATION AND ENTREPRENEURSHIP (DIGENT)

The section was established on January 1st 2018 and encompasses the earlier Centre for Entrepreneurship, as well as researchers from the Information Systems and the Design section within the Department of Informatics.

We develop knowledge to help society harness the potential of technology in a productive and responsible way. Digital technologies have triggered an ongoing transformation of individual and social life, of value creation mechanisms and business models, enabling new organizational forms and collective arrangements. We study technology-centered innovation processes in several empirical domains, aiming at increasing our understanding of the dynamics of their emergence and evolution. Handling the socio-technical complexity associated with these developments requires creative, critical, adaptive and entrepreneurial competencies, and we educate students to act purposefully and responsibly in their future roles as designers, developers, users and managers of technology.

Digitalisation is transforming entrepreneurship in two ways. First, it is shifting the locus of entrepreneurial opportunities in the economy. Second, digitalisation is transforming entrepreneurial practices – or the best ways to pursue those opportunities. Combined, the two trends have given rise to a novel, distinctively different cluster type, the 'entrepreneurial ecosystem' (Autio, Nambisan, Thomas, & Wright, 2017). Yet, to date, there is little coherent understanding of how digitalisation operates – indeed, what it even means – and what the implications are for entrepreneurship policy. Therefore, the objectives of this policy brief are to: - Clarify the definition of digitalisation - Clarify how

digitalisation transforms entrepreneurship - Clarify how digitalisation gives rise to entrepreneurial ecosystems - Elaborate implications for entrepreneurship and innovation policy. Digitalisation is the process of converting material or information into a digital form.

Many businesses are now transitioning online in a bid to streamline the management and day to day running of operations. This shift is being powered by a new wave of technology that allows companies of all shapes and sizes to be more strategic and efficient. This trend is set to continue as more businesses understand the benefits of digitalisation and move to capitalise on them.

From storing documents, online-backups, workflow and document management to remote working, the possibilities are endless. The process is faster, more efficient and safer than offline equivalents. The process of automation saves you time, space and money.

KEY BENEFITS

- Increases efficiency
- Reduces operational costs
- Enables data to be analysed
- Safer data storage in the cloud
- Lack of human error

WHY DIGITALISATION CHANGES ENTREPRENEURSHIP

The recent decade has witnessed a major transformation in how entrepreneurship is practiced and taught. This is manifested in the 'New Venture Accelerator' phenomenon, the 'Lean Startup' movement, and grassroots initiatives such as the Slush event, and, e.g., the Global Entrepreneurship Week. Billion-dollar startups, or so called unicorns such as Uber and Airbnb have captured public imagination while disrupting traditional industries.

These trends are global: entrepreneurs in new business accelerators tend to look the same and talk the same, regardless of whether they are based in London, Bangkok, Tallinn or Silicon Valley. Emerging economies such as India are coming up with their own versions of services like Uber, and even hitherto orthodox centrally planned economies such as Vietnam are now officially backing new business accelerators.

Although the first new business accelerator – Y Combinatory – was launched already in 2005, this phenomenon has swept the globe much more recently, most of it taking place during the past five years. Because of the recency of this phenomenon, there has not been much research-based exploration of the reasons for these trends.

Digitalisation and Web 2.0 modes of engaging with the Internet are exercising a profound impact on how industrial value creating processes are organised. Traditionally, industrial value creation has been neatly organised in vertical, upward-branching value chains. This organisation is the result of two factors: (1) tight coupling between physical products (e.g., cars, shoes) and the function they perform (e.g., driving); and (2) modular product architectures. Tight coupling means that a shoe cannot be easily converted to perform the task of a screwdriver. Modular product architectures mean that physical products consist of sub-assemblies, each of which may recursively consist of sub-assemblies of their own. When these two are combined, the result is vertical, upward-branching value chains with an integrator firm at its apex. In such value chains, 'value' flows neatly from 'upstream' to 'downstream' – i.e., from suppliers to the customer.

Digitalisation does three things to change this organisation of value processes. First, it breaks the tight coupling between product and function: any digital device can be flexibly reprogrammed to perform different functions. Second, as analogue information is converted to digital form (i.e., digitised), it can be read by any digital device and combined with any other digital

information (e.g., combining text with voice and so on). Third, digital properties can also be embedded in physical products, making them programmable, addressable, sensing, communicable, memorizing, traceable, and associable.

These three effects of digitalisation have a profound effect on how value creation is organised, and, by implication, on entrepreneurial opportunity creation and pursuit. Instead of vertical value chains, value-creating activities are increasingly organised around platform-centric innovation ecosystems. Instead of distinguishing between 'upstream' and 'downstream', it makes more sense to distinguish between the 'core' and the 'periphery' of innovation ecosystems, with a set of shared technology resources and standards (i.e., a 'platform') at the core and 'suppliers' and 'users' in the periphery. Because digitisation breaks the coupling between devices and functionalities, functionalities can be combined and recombined at will, speeding up combinatorial innovation.

In short, digitalisation: (1) re-organises value processes from linear and vertical value chains into horizontal and distributed innovation ecosystems; (2) dramatically speeds up the process of creating new combinations; (3) enables users to become much more engaged in innovation processes than before; and (4) dramatically reduces the cost of creating new bundles of functionalities. All these developments have the effect of reducing the upfront investment required to start a new business, and also, substantially reducing the cost of entrepreneurial experimentation. The result is a new wave of entrepreneurial activity that takes advantage of the reduced cost of entrepreneurial experimentation while also taking advantage of another property of digital products – i.e., ease of scaleup – to pursue opportunities in novel ways.

These effects of digitalisation are manifest in the defining principles of the 'Lean Startup' mode of entrepreneurial opportunity pursuit that underpins the New Venture Accelerator movement. Those principles are: (1) bias for action rather than planning by taking advantage of the low cost of creating new functionality

bundles and leveraging the internet to engage with users early on; (2) frequent experimentation enabled by the low cost of bundling and re-bundling; (3) collection of frequent, real-time feedback from potential users, again leveraging Web 2.0 affordances; (4) frequent business model experimentation and evolution, as enabled by the absence of sunk cost in physical production and distribution assets.

One final, parallel set of developments is worth registering here. Digitalisation is not limited to products, services, and manufacturing processes. With digitisation, entire business processes can now be digitalised. The result has been a rapid increase in business process outsourcing and offshoring, to complement the already well-established manufacturing outsourcing trend. Such services are increasingly available to new ventures, and the availability of 'software-as-a-service (SaaS)' and cloud-based applications greatly facilitate the opportunities available for new ventures to rapidly and flexibly scale up and internationalise their operations, should they 'strike gold'. This means that digitalisation not only affects startup, but also, scaleup and internationalisation.

[1] Digitisation is the technical process by which analogue information is converted into digital form. Digitalisation is the socio technical process by which digitizing techniques are applied to broader social and institutional contexts that render digital technologies infrastructural.

[2] Incidentally, the term 'Web 2.0' was introduced into the public consciousness in 2004 with the first Web 2.0 conference, a year before Y Combinatory was founded.

[3] E.g., Dropbox for file storage, sharing, and distributed access; Basecamp for distributed project management; Fresh books for accounting services and so on.

ENTREPRENEURSHIP OPPORTUNITIES IN 'DIGITAL INDIA'

India and most developing countries are in a unique situation today. Their economies have only partially been industrialized. Agriculture and traditional rural economy still

dominate. Higher education and even literacy is not universally accessible.

But, the digital infrastructure of the most developed nations in the world is being rapidly established in these developing countries, especially India.

All the standard visible artifacts of an advanced economy are widely accessible, whether it is smartphones, broadband internet access, cloud services, 3G/4G, as well as access to almost all the digital media platforms like Facebook, Twitter, YouTube, Google Search, Amazon, and more.

Plus, Indian software engineers are at the cutting edge of software development, since large portions of these platforms have been developed by Indian outsourcing shops or Indian NRIs, worldwide. In fact, Indian software engineers are the leading contributors to Open Source Software in all areas, and are the drivers of the Digital Revolution worldwide.

The consequences of the digital "haves" and "have-nots" can have tragic consequences for the mainstream Indian economy. For example, Uber and Ola cabs skim off the top ten percent of premium, highly profitable taxi travel with only a few thousand Uber and Ola cabs (Mumbai is home to 250,000 taxicabs and 250,000 auto rickshaws).

This threatens the subsistence level of the entire taxi service sector. The reaction of the taxi industry with strikes and morchas and beating up Uber drivers and destroying their cars is sad to see.

These e-commerce companies benefit from economies of scale, as their addressable market consists of the entire population of India, while the local store owner can sell only to the houses in the neighborhood.

Today, the Indian retail sector largely consists of individual mom-and-pop stores for all kinds of goods and services, replicated in every neighborhood in India. These stores provide everything that is needed by the “walkable” neighborhood. And everyone lives in

essentially sustenance mode. Nobody makes too much money, but nobody starves, either.

Whether you are in a small town, a mid-size town, or a suburb of a metropolitan town like Mumbai, this model is replicated. This model has been optimized over hundreds of years, and consequently has been commoditized to its most efficient state.

The advent of Digital India changes everything for this age-old economic model. All goods and services can now be delivered to each home in India, except more cheaply and with more choice and quality. This fundamentally destroys the value proposition of the traditional Indian retail economy.

Retail India cannot compete with the digital e-commerce vendors in price, quality, choice, delivery, or service. Today, only the premium segment of consumers use this service, since smartphones with mobile Internet access has only penetrated three percent of the population (50 million smartphones).

However, in five years, smartphones are expected to reach 500 million users, and mainstream middle and lower middle class users will, for the first time, leverage it for their retail purchases. This will effectively bring India's traditional retail industry to its knees.

Similar extrapolations need to made by the Indian entrepreneur to visualize the future for entertainment, politics, education, transportation and more. We have the benefit of 20:20 hindsight, since U.S. and European economies are eight to ten years ahead of India's, while the Chinese economy is three to five years ahead.

It is easy for the Indian entrepreneur to study which business models succeeded and, more importantly, which failed and why. Then, project these lessons to the Indian economy.

Most of the successful first generation Internet startups in India and China are copycats of U.S. internet successes (see Naukri.com, Shaadi.com, Baidu, WeChat, Rediff, etc.). Today,

internet successes like Flipkart, Housing.com, Snapdeal, and Alibaba are also copycats of U.S. successes.

For these entrepreneurial successes, the innovation is not in the basic business model, but in the innovative localization and adaption to government regulations and idiosyncrasies.

Given this landscape, where are the opportunities for entrepreneurs in Digital India? I see opportunities in four categories:

Category 1: Clearly, there are lots of opportunities in emulating what the first and second generation of Indian entrepreneurs have done — copy U.S. startups with innovative localization. There will be many super successes in this category.

The VC industry in India, which is heavily dominated by U.S. VC firms, are very comfortable with investments in this category, and will invest heavily in the copycat entrepreneurs.

Category 2: Indian entrepreneurs have an opportunity of applying successful U.S. business models to new segments of the Indian economy. The Uber and Airbnb on-demand sharing business model can be applied to put many shareable resources to efficient use.

For example, see how HireMyMachines entrepreneur Girish Jaggi has uberized heavy equipment. In less than two years, Jaggi has aggregated over 3,300 heavy machines and has built a thriving digital business. Similar opportunities exist in all kinds of segments of the Indian economy.

Category 3: The enablement of the "Long Tail" businesses by the reach of the Ecommerce Platforms.

One of (probably unintended) and poorly understood benefits of the wide-spread reach of ecommerce platforms such as Amazon and Flipkart is that business that target very, very narrow niches of customers, distributed all over India, can be cost-effectively targeted.

With 500 million Indian consumers in five years, who will have the ability to "search" for their unique needs, very small niche products, will also result in successful entrepreneurial startups.

For example, Pratik Doshi's Cheeky-Chunk company has successfully created a very profitable, multi-million rupee, designer umbrella business in two short years. Today, on the Amazon platform, Cheeky-Chunk has four of the top ten umbrellas. This has allowed Cheeky-Chunk to reach niche customers in small towns all over India.

Similarly, innumerable "Long Tail markets" exist, and creative entrepreneurs now have the platforms to reach them, with viable, scalable, profitable business models.

Category 4: Empowering the traditional economy with tools of the Digital Economy to create a unique Indian version of the Digital Economy. For example, in San Francisco, Rakesh Mathur runs a company called Flywheel that empowers all taxi drivers with an Uber equivalent, on-demand taxi ordering and electronic payment system.

This has been very well received by the San Francisco Taxi Association, and now many cities, like New York and Chicago, are racing to empower their taxi drivers to compete with Uber's ease of use. If Indian entrepreneurs develop equivalent digital tools for the Indian taxi, auto and transportation sector, these sectors can continue to be competitive.

Indian entrepreneurs can work on empowering major segments of the traditional economy with the tools of a digital India before foreign business models destroy them. These tools can give consumers all the benefits of the Digital Economy, such as choice, cost, personal delivery, and high service quality.

This would enable the traditional retail industry to be on competitive footing with the foreign e-commerce giants and their copycats.

India has the opportunity to develop its own unique digital economy that provides the efficiencies and the benefits of digitalization without destroying the traditional economy. It will require a lot of Indian entrepreneurs to do it. If successful, Digital India will become the model for all developing countries.

THE CONCEPT OF RURAL ENTREPRENEURSHIP DIGITALISATION

Primary concepts in entrepreneurial practice involve independence, innovation, decision-making, forecasting, implementation and achieving success. However, rural entrepreneurship needs to be better developed to improve its broader economic participation. A transformation in how rural entrepreneurship is practised could attract greater business success, but effective economic activities can only be achieved by the digitalisation of rural entrepreneurship. Digitalisation can be described in terms of the infrastructural processes associated with digital technologies, in which analogue information is transcribed to digital form and applied in broader social and institutional contexts.

Understanding and implementation of rural entrepreneurial digitalisation are of critical importance if they are to be of benefit in the economic growth of the country. The digitalisation of EO in rural environments must be broadened and capacitated by the relevant authorities, because such endeavours are currently either very limited or absent, and little data are available on rural areas of many countries. The involvement in promoting this type of development in rural areas by policymakers, government agencies, relevant business stakeholders, as well as rural entrepreneurs themselves, is therefore regarded as essential.

The importance of digitalisation is not restricted to products, services and manufacturing processes, but includes a broad spectrum of competencies, including marketing, business networking, promotional mix, product distribution, supply chain management, access to international markets and the management of growth to achieve competitive advantage. Digitalisation of all business processes is possible, and the outsourcing of certain services, or a shortage of human capital available to rural businesses, can thereby be easily surmounted, since digitalisation can be used to positively enable new start-ups and potential young entrepreneurs willing to operate in rural environments in this way.

Few investigations have been performed into how digitalisation could improve the survival and development of rural enterprises, which has resulted in a lack of knowledge and understanding of its relationship with improving the success of rural industries. Knowledge concerning the benefits of digitalising rural businesses, and how this can improve business operation capacities, remains mostly assumptive amongst professionals and policymakers. Much evidence from an international perspective exists, however, to indicate that small business, which is generally found in rural areas, plays a crucial role in the creation of a variety of different economies.

DIGITALISATION AND THE TRANSFORMATION OF ENTREPRENEURSHIP

Digitalisation both shapes the locus of entrepreneurial opportunities in the economy, and it transforms best practices for the pursuit of such opportunities. These two trends operate in entrepreneurial ecosystems –or communities of stakeholders and specialised resources that support the creation and scale-up of new business ventures.Entrepreneurial ecosystems differ from traditional types of regional agglomerations (e.g., clusters,industrial districts, regional systems of innovation) in three respects:

The organisation of their specialised resources (around the start-up and scale-up of new ventures);

Dominant networking and competition patterns (horizontal networking, vertical competition)

Dominant forms of knowledge spill-over (specialising on entrepreneurial opportunity pursuit and scale-up through radical business model innovation (Autio et al., 2017).Spatial proximity facilitates four types of externalities that benefit business in regional agglomerations:

(1) specialisation;

(2) resource access;

(3) reduced transaction costs; and

(4) knowledge spillovers.

The first three operate similarly in entrepreneurial ecosystems as in traditional regional agglomerations. However, knowledge spillovers, are distinctively different in entrepreneurial ecosystems. Traditional agglomerations share a knowledge base that is technical in nature –either specialised in a given industry sector (e.g., a furniture cluster) or technology (e.g., a biotechnology cluster). In entrepreneurial ecosystems, the shared knowledge base concerns a generic business process –i.e., how to organise effectively for entrepreneurial opportunity pursuit and scale-up through radical business model innovation. Firms gravitate towards traditional agglomerations because they can learn more effectively about a given industry or technology. Start-ups gravitate towards entrepreneurial ecosystems because they can become more effective in organising for scale-up and in discovering radical business models that can challenge established industry incumbents. These differences prompt a distinctive pattern of networking and competition in entrepreneurial ecosystems.

Traditional agglomerations typically consist of linear and vertical value chains that point to specific markets. This means that firms in the same stage of the value chain are potential substitutes who compete with one another. In contrast, firms in successive stages of the value chain (e.g., a component supplier and sub-assembly manufacturer) are complements and do not compete. This gives rise to a pattern of horizontal competition (among firms in the same value chain stage in the cluster) and vertical networking (among firms in successive stages of the value chain in order to optimise their transactions).In contrast, entrepreneurial ecosystems are characterised by horizontal networking (in the same 'value chain stage') and vertical competition (against traditional industry incumbents that are located outside the cluster).

This is because each new venture points to its own market with a distinctive offering. Therefore, horizontally related ventures in entrepreneurial ecosystems are not potential substitutes and thus

do not compete with one another. Yet, they all compete with the same means –radical new business models that challenge traditional leaders of established industry sectors.

Therefore, the new ventures have a natural incentive to share their experiences from business model experiments, because such sharing enables all new ventures in the ecosystem to become more effective in challenging industry incumbents. This pattern explains the distinctive culture of entrepreneurial ecosystems, one that emphasises knowledge sharing and peer mentoring and celebrates success.

TRANSFORMATION OF BUSINESS MODELS OF ESTABLISHED SMES THROUGH DIGITALIZATION

The second set of policy challenges relates to the digital transformation of existing SMEs in the economy. Above I quoted data from Switzerland, where 76% of existing SMEs expected their markets to be transformed through digitalisation. This is a major disruption that creates the need for targeted policy action to address established SMEs. Although the majority of SMEs expect their markets to be disrupted, they currently lack the tools to proactively rethink their business models so as to leverage the potential of digitalisation.

ADVANTAGES OF DIGITAL ENTREPRENEURSHIP

The main advantage is that you can manage your business from anywhere in the world, provided that you have access to the internet. With this kind of mobility, other advantages arise, such as:

- **Spending More Time With Your Family**

How many times have you missed or been late for someone's birthday because you were working or because you got stuck in traffic?

In digital entrepreneurship, this can happen, but it will happen less because you can work from home if you prefer.

Of course, this doesn't mean that you won't have a pre-

established routine, nor that you can spend all day playing video games with your kids, but digital entrepreneurship will certainly provide you with more freedom to adjust your schedules and participate more in your family life.

- **More Flexible Hours**

At the beginning of your business, you'll need to work hard to conquer your space in the market, especially if you manage the business alone. But working hard doesn't mean working all day long, because no one is productive all the time.

When you a digital entrepreneur, you define your own schedules, work during the hours when you are more efficient, and even postpone an appointment because of an unforeseen event, which is much more difficult when you work from 8:00 am to 6:00 pm.

- **Cost Savings**

If you only need a computer with internet access to get started, you will save a lot by not having to lease a space for your company and all the expenses with utilities, taxes, etc.

Of course, the amount spent will vary according to your business model, but it is certainly cheaper to start an online business than to have a physical establishment.

- **Easiness Of Reaching Many People**

According to a We Are Social, more than 4 billion people on the planet now have access to the internet. That's more than 50% of the world's population.

This clearly shows that doing business online is the best path to reach more people at the global level.

While in a physical business you would have your operations limited by geographic and mobility barriers, with digital entrepreneurship and a well-defined marketing strategy, you can reach out to various parts of the country and get more people to know your product.

- **Easily Scalable**

Scaling a business means increasing the volume of production and sales, without increasing investments and the fixed cost for the same proportion.

Once again, this will depend on your business model, but it is undeniable that it is "easier" to scale an online venture than a physical store.

Thinking about an everyday example: Online courses as you probably already know, are educational materials produced to be consumed online.

After you have developed your material and made it available online, anyone who pays for it will be able to access it, without you having to record the lessons again. This type of product will also never be out of stock, unless you decide to delete it.

Unlike classroom classes where you would have to go to where the students are and would be restricted to where you live. With this example, it is easier to understand the concept of scaling, right?

- Career Possibilities For Those Who Wish To Undertake Online

Here on the blog, we have several specific posts about digital entrepreneurship models, so we won't focus much on this topic. Our idea is merely show that there is a range of possible businesses, even for those who have never worked with sales on the internet.

- **Producer**

Producers are those who create content to be consumed online. This material can be in various formats, such as e-books, video classes and podcasts. In order to become a Producer, you just need to have knowledge that is useful for others and wish to share it.

- **Affiliate**

Affiliates are professionals that promote third-party products in exchange for commissions for each sale made. This profession is highly recommended for those who already have

online influence, but don't wish to create their own content, as is the case of digital products, nor manage inventory, as is the case of physical products.

CONCLUSION

In the modern world people can no longer expect large enterprises to guarantee them jobs for life. Individuals are increasingly expected to seek out their own opportunities, actively create value and behave ethically, rather than faithfully follow rules and routines set by others. In particular, today's young people need to learn to be enterprising, both when working for others and when setting up their own businesses. Being enterprising involves taking responsibility for decision making, becoming increasingly self reliant, pioneering, adventurous, daring, dynamic, progressive, opportunist, ambitious and holding your values, as well as being able to initiate ideas and see them through into action.

To reach to primary lesson goal of completing a sample online learning unit of instruction within a specified time limit, we applied our previously learned knowledge of:

- word processing,
- email and attachments,
- discussion forums,
- multimedia links,
- web conferencing,
- LMS navigation, and
- online quizzes

We also learned two steps for increasing confidence: asking for help and setting goals which led us to a discussion and quiz on three categories of characteristics of an entrepreneur

1. Motivations: need to achieve, ambition, self-sufficiency, and power appeal.
2. Aptitudes: determination, enthusiasm, resistances to stress, and creativity.
3. Attitudes: perception of destiny, and action-oriented.

REFERENCES

1. *https://thegedi.org/why-digitalisation-changes-entrepreneurship-and-everything/*
2. *https://blog.hotmart.com/en/digital-entrepreneurship/*
3. *http://businesscasestudies.co.uk/nfte-uk/the-importance-of-entrepreneurship-in-small-businesses/conclusion.html*
4. *http://conference.iza.org/conference_files/MacroEcon_2018/sorgner_a21493.pdf*
5. *https://tietokayttoon.fi/documents/1927382/2116852/20_2017_Digitalisation%2C+ecosystems%2C+entrepreneurship+and+policy/6b383210-70de-491f-b0df-38de52699458?version=1.0*
6. *https://www.comparethecloud.net/articles/business-digitalisation/*
7. *https://www.journals.elsevier.com/technological-forecasting-and-social-change/call-for-papers/digital-entrepreneurship-creating-and-doing-business-in-the*
8. *https://www.roedl.com/insights/digitalisation/opportunities-challenges-entrepreneurs*
9. *https://www.researchgate.net/publication/309242001_Digital_Entrepreneurship_Research_and_Practice*
10. *https://blog.hotmart.com/en/digital-entrepreneurship/*
11. *https://www.indiawest.com/news/global_indian/entrepreneurship-opportunities-in-digital-india/article_90d8e6a2-639f-11e5-8073-abbb7d894b4b.html*
12. *https://www.intechopen.com/books/entrepreneurship-trends-and-challenges/the-digitalisation-of-rural-entrepreneurship*
13. *https://www.mn.uio.no/ifi/english/research/groups/digent/*
14. *https://thegedi.org/why-digitalisation-changes-entrepreneurship-and-everything/*

DIGITALIZATION AND EDUCATION

***R.JAYA PRABHA**
(Reg.No.12218) Ph. Research Scholar,
Department of Commerce and Research Centre,
Scott Christian College (Autonomous), Nagercoil

ABSTRACT

Digitization is less commonly digitalization. Digitalisation is the process of converting information into a digital format in which the information is organised into bits. .the result is the representation of an object image, sound, document or signal by generating a series of numbers that describe set of its points or samples. The result is called representation. Digitalization of education is a powerful trend in terms of reformation and modernization of global education environment.

INTRODUCTION

Digital learning is any type of learning that is accompanied by technology or by instructional practice that makes effective use of technology. It encompasses the application of a wide spectrum of practices the benefits of technology depend on the way children, parents and teachers choose to use it to enhance learning. When used well for educational purposes, the latest technologies can help create opportunities for more active and meaning full earning experiences. Technology has to facilitate and stimulate individual learning. Technology should not replace teachers. Its main use is to enable students learn better through increasing their engagement in educational activities.

Digital classrooms have been creating a revolution in the educational sector. Embedded with modern day technologies, such interactive classrooms offer a friendly environment to the students where they may clear all their concepts while having endless fun.

Benefits of digital classrooms are a lot more than one can ever think of. They are ideal for educating the little angels about the most basic rules of learning and also help them in retaining their knowledge. They have not only changed the perspective of students towards studying but have also helped the teachers in preparing dynamic multi-media lessons which can be interesting for students. Learning is more of a fun and less of a burden with the introduction of such digital classrooms in education.

In the coming decades if information technology has its approach, education will be far changed, more immersive and hopefully more constructive to the people than it is today. Digitization in education industry has totally changed the learning and also the teaching process to a very great extent.

Technology has made imparting education stress-free for both students and educators. Schools are gradually implementing digital teaching solutions to involve with a generation of learners familiar with the likes of playstations and ipads and trying to make the classroom atmosphere more broad and participatory. Information and

OBJECTIVE

1. To study about digitalization and education.
2. To find Technology should support collaboration and effective interaction for learning.

METHODOLOGY

Detail and information collected for the purpose of study was collected from the secondary sources viz, website, published articles, thesis and dissertation, journal, magazines etc.

DIGITALIZATION AND EDUCATION
TRADITIONAL EDUCATION

The traditional education system was based upon the concept of ‘knowledge transfer’-the age old guru shishya

parampara-which established a clear teacher taught relationship. Today there are tools available to transform learning from an academic exercise to an engaging experience in imaginative and experimental learning. The institution of teacher remains sacrosanct pillar of the education system-beacon which not only inspires and connects but also creates a human interface that prompts students to exploit the digital resources gainfully. The multiplicity of sources and sheer magnitude of digital information available requires students be guided through the immense clutter to harness knowledge.

The multiplicity of sources and sheer magnitude of digital information available requires students be guided through the immense clutter to harness knowledge. While the digital age will positively impact all forms of education, it cannot replace the human interface which is so vital to the social, moral and emotional development of the child.

DIGITALIZATION IN EDUCATION

Information technology has reformed each sector it has grasped and it is currently in the promising phases of altering academia. In the coming decades if information technology has its approach, education will be far changed, more immersive and hopefully more constructive to the people than it is today. Digitization in education industry has totally changed the learning and also the teaching process to a very great extent. Technology has made imparting education stress-free for both students and educators. Schools are gradually implementing digital teaching solutions to involve with a generation of learners familiar with the likes of playstations and ipads and trying to make the classroom atmosphere more broad and participatory.

Various teachers are ready to accept the wave of digitization but more effort still need to be exercised when it comes to teacher training. Currently students live in a world that is

constantly linked and alive outside the class room, so traditional methods won't work now. The true revolution in education can only be achieved via digitization of education so that students can learn at their own speed both within and outside the classroom.

DIGITAL EDUCATION IN INDIA

with a variety of new softwares available in the market, more than 100,000 schools and colleges in India have immediately taken over various forms of these technology softwares.

The process of digitisation in the field of education is emerging at a very fast pace in India. New technologies are being adopted quickly by private schools so as to satisfy the educational needs put forward by the gennext students. Digital tools are extensively being used to enhance the system of education in rural India.

PM Modi's emphasis on the Digital India campaign is going to increase the scope of technology in the country. It aims to ensure better connectivity and maximise the potential of India's demographic dividend.

Adaptability, a key 21st century skill, lies at the heart of innovation and its core principles, collaboration and experimentation. In adopting these tenets education is experiencing a cultural shift towards a willingness and ability to change at the same pace as the world around it and this is a brilliant step towards evolution. Digital learning is any type of learning that is accompanied by technology or by instructional practice that makes effective use of technology. Sometimes confused with online learning or e-learning, digital learning encompasses the aforementioned concepts.

DIGITAL LEARNING STRATEGY

Digital learning requires more than just the latest devices, it should be a combination of the device, digital content which provides educational resources and instructions. Technology is the

tool used to bridge between the learner and the content in the most effective and efficient way. Digital learning not only helps the learner, it also helps instructors or teachers to teach effectively and efficiently with the aid of digital media. Following are digital learning strategies.

- Adaptive learning
- Badging and gamification
- Blended learning
- Classroom technologies
- E-textbooks
- Learning analytics
- Learning objects
- Mobile learning
- Personalized learning
- Online learning (or e-learning)
- Open educational resources (oers)
- Technology-enhanced teaching and learning
- Virtual reality
- Augmented reality

REQUIRED METHODS FOR DIGITALIZATION LEARNERS

- **Time:** learning is no longer restricted to the school day or the school year. The internet and a proliferation of internet access devices have given students the ability to learn anytime.

- **Place:** learning is no longer restricted within the walls of a classroom. The internet and a proliferation of internet access devices have given students the ability to learn anywhere and everywhere.

- **Path:** learning is no longer restricted to the pedagogy used by the teacher. Interactive and adaptive software allows students to learn in their own style, making learning personal and engaging. New learning technologies provide real time data that gives teachers the information they need to adjust instruction to meet the unique needs of each student.

- **Pace:** learning is no longer restricted to the pace of an entire classroom of students. Interactive and adaptive software allows students to learn at their own pace, spending more or less time on lessons or subjects to achieve the same level of learning. Digital learning is more than just providing students with a laptop. Digital learning requires a combination of technology, digital content and instruction.

- **Technology:** technology is the mechanism that delivers content. It facilitates how students receive content. It includes internet access and hardware, which can be any internet access device – from a desktop to a laptop to an ipad to a smartphone. Technology is the tool, not the instruction.

- **Digital content:** digital content is the high quality academic material which is delivered through technology. It is *what* students learn. It ranges from new engaging, interactive and adaptive software to classic literature to video lectures to games. It isn't simply a pdf of text or a power point presentation.

- **Instruction:** educators are essential to digital learning. Technology may change the role of the teacher but it will never eliminate the need for a teacher. With digital learning, teachers will be able to provide the personalized guidance and assistance to ensure students learn and stay on track – throughout the year and year after year – to graduate from high school. Teachers may be the guide on the side, not the sage on the stage.

IMPORTANT OF DIGITAL EDUCATION

With the rising demand from schools for digital education, many companies are emerging to ensure that there is a continuous supply. The digital education space currently has players of various sizes, each with its own unique expansion strategy technology also gives the teacher much more time to work with their students, by automating mundane tasks like record keeping, lesson planning and so on. Teachers can also look at individual student records to offer personalized coaching and advice, and communicate specifics with parents.

Through hands-on activities and 'learning by doing', students can understand concepts better, become more interested and curious in the process. Digital learning also helps introverted students voice their views in the classroom. Gone are the days when the shy ones would have to swallow their questions or curiosity for fear of being ridiculed. In this way, the students shall be able to communicate with teachers in-house and globally as well. They can discuss their doubts, queries in classrooms using backchannel devices and teachers can respond to them using smart screens in classrooms.

Once a class is done, it can be uploaded on youtube. In case a student has missed a class, he or she can still go online and access it in order to not fall behind.

Education will be made globally accessible. Teachers can share their data and resources over the Cloud. Students can retrieve the information shared for them on Cloud independently and can perform self-learning on the modules.

DIGITALIZATION IN INDIA

India being one of the most progressive nations in terms of economy and technology, the country faces numerous challenges upon attempting to supply administrative services to every single citizen.

During the past years, the Indian government successfully started various initiatives though, which resulted in meeting many of these challenges and in paving the way to digitization. The biometric identification program "Aadhaar" rang the bell for India´s digital revolution. Further projects like Jan-Dhan Yojana (providing a bank account for every Indian household), PAHAL (LPG subsidies for Aadhaar Card holders) and digilocker (storage of personal documents on a secured government server) followed.

Under the flagship campaign "Digital India", the government continues to initiate further projects for the benefit of citizens as well as companies. The mission "Smart Cities" e.g. Is supposed to change the urban landscape, to create new investment opportunities and to promote employment. Furthermore, the Indian government continues to strongly promote the transfer into a cashless economic system by pushing the establishment of digital payment transactions which has been thriving dynamically since the demonetarization in 2016.

GROWTH OF DIGITAL LEARNING IN INDIA

The education divide in India with respect to quality and accessibility has existed for far too long. The Indian education system has remained more or less the same, since last 150 years. It is difficult for the existing physical infrastructure to meet the learning needs of the burgeoning population of our country which will touch 1.5B by 2030 and 1.7B by 2050 (equal to the population of China and USA combined). Digital is gaining acceptance across numerous sectors and it is only right that the education sector too reaps benefits of this digital transformation.

In a country as diverse as India, along with overcoming the infrastructure barrier, there needs to be a focus on overcoming the barriers of language and content. It is impossible to have great teachers in each and every village/district in India. Similarly, the best teachers should not be restricted to certain institutes of the world. This is where e-learning comes in. It can level the playing field for all students. Students, in both rural and urban areas, can get access to the best learning resources, learn at their own pace and in the comfort of their own homes. Another key advantage with e-learning is that it is much easier to design courses with the latest online reference material than publishing crores of books. With the significant rise in internet penetration and the drop in the prices of smartphones in India, access to online learning resources will soon become ubiquitous.

Today, whether it is finding a new word on Google, or watching a photography video, without realising it, we are already using the internet to constantly learn. A major chunk of learning is already happening on the internet, with the government's push we can expect it to grow to exponential levels.

The launch of the second phase of the Digital India campaign with a renewed focus on education is a welcome step towards the faster development of the education sector. Online education is also receiving its due importance in the New Education Policy drafted by the Kasturirangan Committee. Massive Open Online Courses (MOOCs) under the government's SWAYAM initiative have the tremendous potential to make higher education accessible to India's youth, that forms more than 50% of our population. The government's push for e-learning reinforces the efforts of online education providers to empower both learners and educators, create more engaging learning experiences and foster personal development. With the push, students will also realise that the accessibility to great teachers can take their learning to the next level.

TO STUDY ABOUT DIGITALIZATION IN EDUCATION BENEFITS OF DIGITAL LEARNING

1. Time and Place

Learning becomes less time consuming and can be done at any point of time. The Internet access provides facilities to commence courses at any point of time in a year, unlike the regular academic courses. The learners need not worry about attending a regular class in a specific place since learning can be done on their personal device irrespective of the place and time. Therefore, issues regarding time and place becomes flexible for the learner

2. Efficient

Digital assessment systems deployed in the software used for digital learning provides an instant feedback for the learner. This Allows the learners to understand whether more time should be spent on a particular topic. Learners can work at their own pace of learning ability, unlike the institutional systems.

3. Cost-effective

The learners and instructors can rely on ebooks and web portals for educational resources rather than spend money on buying books.

4. Global reach

The learners can access to courses and materials from different parts of the world. Additionally, it allows learners and instructors to connect and communicate with other people around the world. This provides a richer learning experience.

5. Variety

Information can be presented in a large variety of ways attracting the learner and increasing their concentration. Technological innovations like a smart board, electronic

readers, ipads and so on can provide information in a wide range of ways.

6. Knowledge availability

Digital learning provides an extensive amount of knowledge to the learners. With the help of the Internet, learners are able to access a massive amount of data from different parts of the world at a very cheap cost.

FACTORS THAT ARE ENABLING THE GROWTH OF DIGITAL EDUCATION

1. Personalised And Adaptive Learning

Learning platforms, softwares and digital devices are together creating countless new ways to modify education. Precise, mobile and reliable applications are being created to teach students, help them practice their learnings, take assignments and manage their schedules.

Schools are now providing their students with digital devices like desktop computers, laptops and tablets. These devices are aiding them in the teaching process while also helping them understand how students learn and how to enhance their learning process.

2. Two-Way Conversations In E-Learning

In the traditional classroom seating scenario, students are unable to get the individual attention they need due to time constraints. In contrast, the one-to-one context of learning in digital mediums currently students to learn through videos and chat with an expert.

The upcoming 'Learning Management System' will continue the two-way communication model between students and experts. More importantly, it will let students track their coursework progress, identify improvement areas and offer ways to make the most of them.

3. Mobile-Based Learning

Over the past few years, mobile learning has picked up by the populace who have gradually assimilated it in their lives. It has offered students the flexibility to access educational content seamlessly across multiple digital devices like desktops, laptops, tablets and smartphones.

4. Video-Based Learning

Video learning has always appealed to students since it closely mirrors the traditional classroom teaching style..Video lectures allowed students to learn subject syllabi at their own pace and dedicate time spent in class towards interactions.

This will continue to be a trend in the future where students will have access to rich and interactive content, that will be useful for both formal training as well as performance enhancement. The increase in video-based learning on mobile devices will eventually account for 80 per cent of all internet traffic by 2019.

5. Open Educational Resources

Open digital education resources have commonly been used in distance learning courses. Open educational resources also facilitate the creation of a flexible environment where teachers can customize educational content for individual sessions or classroom sittings. This is applicable for typical curricular subjects like mathematics, sciences and languages, as well as business and fine arts.

6. Usage of Virtual Reality (VR) And Augmented Reality (AR) For Learning

Virtual Reality and Augmented Reality are already buzzwords in the technology space. VR allows students using e-learning platforms on mobile devices to directly interact with study material. This keeps their engagement levels high and motivates them to learn more and better. On the other hand, AR facilitates

teachers and trainers in performing tasks, they previously haven't or cannot, in a safe environment.

BASIC DIFFERENCE BETWEEN DIGITAL EDUCATION AND THE CLASS ROOM EDUCATION

Gone are those days when classroom training was restricted to textbook learning, teachers using the blackboard to explain things and students writing down notes in copies. The traditional teacher-centred methods of teaching and task-based approaches to learning focused more on making notes and memorization. However, it's no more chalk and talk in most schools. Classroom teaching has become more and more interactive nowadays with the use of digital methods such as ppts, video presentations, e-learning methods, practical demos, online training and other digital methods or platforms.

LIST OF THE ADVANTAGES OF TECHNOLOGY IN EDUCATION

1. Promotes independent learning in students

The internet is a treasure trove of information. Practically anything you need to know can be found online. Although there is a question of the credibility of the source and the data provided, it can still serve as an educational resource for students. Even without assistance from parents and teachers, students can just look up their lessons online.

Unlike regular textbooks, electronic books and web-based content are updated in real time, feeding students with the most current information they can get their hands on, helping them become more knowledgeable even outside the classroom setting.

2. Prepares students for the future

From the way technological advancements are going, it is obvious that the future will be digital and technology-focused. If

students are well-versed on using technology to collaborate and communicate as early as now, they will not have trouble fitting in, competing and finding jobs in the future. Being familiar with using at least one form of technology at an early age will help them become comfortable using it, and eventually develop other skills necessary to handle other innovative devices and processes.

3. Has the potential to lower textbook and tuition prices

With resources more accessible and in great abundance, the cost of textbooks is likely to decrease. It is also possible that students may no longer need to buy a textbook, if it is converted into digital format. The actual books can stay in the classroom, while the content is saved on a student's computer.

Tuition will also decrease when learning is done online, rather than inside the classroom. By taking out the factors that contribute to a higher tuition fee, such as utility bills and transportation allowance of teachers, the overall cost of education will be lower.

4. Allows teachers to create an exciting way to educate students

Gone are the days when the only tools for teaching are limited to books, a blackboard or whiteboard, and a chalk or markers. With technology integrated to education, teachers can now incorporate images, videos and other graphics when delivering lessons. Specific websites, apps and programs will also enable teachers to vary how they provide instructions. This creates an exciting learning environment and promotes interest in education in general.

Other tools available for teachers include Smart Boards (interactive whiteboards), email Skype, and PowerPoint.

5. Encourages development of new teaching methods

Rather than spend an hour or so talking while the students listen, or have them read an entire chapter in silence, teachers and

professors now have the option to use advanced teaching methods, such as podcasts, blogs and social media. When working with a particular group or one-on-one, teachers can take advantage of web conferencing technologies other online communication tools.

Technology also presents universal tools that enable teachers to educate all types of students, including those who are struggling or have special needs. These include voice recognition, text-to-speech converter, translator, volume control, word prediction software and other assistive technologies.

LIST OF DISADVANTAGES OF TECHNOLOGY IN EDUCATION

1. Results in a lack of interest in studying

Everything is now accessible online or through data saved in a computer or mobile devices, students are likely to develop poor studying habits and a lazy attitude towards education. Some of them may even think they can skip school because they can find answers and lessons online.

This can also lead to students forgetting the basics of studying. They would rather rely on computers and the internet, instead of their books and the input from their teachers. When it is time to take the tests in the classroom and without any form of technology, students are likely to fail.

2. Makes students vulnerable to potential pitfalls

While computers prove to be an invaluable educational tool, it can also be a source of problems. This is especially true for students who lack the skills needed to maximize a device's functionalities. Technical problems and computer malfunctions can cause loss of assignments and other materials, resulting in high levels of stress that students would rather not experience. Difference in internet speeds and a device's capabilities can also lead to certain

difficulties that will de-motivate students. Add to this other things that they will discover online, which are completely unrelated to school and education, and they will be distracted to no end.

3. Negative views on technology

Consumerism has taught us that technologies, from computers to mobile devices, are widely viewed as tools to entertain rather than educate. Textbooks, on the other hand, are seen as tools for learning. So, between a tablet and a textbook, students are likely to gravitate towards learning when reading a book, while they are likely to use a tablet to play games or spend time on social media.

4. Raise instructional challenges

For professors and teachers to stay abreast with technology, they may need to be retrained. Those who have been teaching all their lives using traditional methods may not be very susceptible to the changes being applied. They may even see it as a threat to their job security and shun technology altogether. In fact, a majority of teachers believe that constant use of digital technology is affecting a student's attention span and his ability to persevere when a challenging task is thrown his way. Although such belief is subjective, scholars, experts and teachers all agree that technology has changed the way students learn.

5. Can diminish overall value of in-person education

Although research on online learning did not establish a direct link to how personal interaction affects a student's performance, data gathered did show that those who enrolled in online courses have higher chances of failing, dropping out of classes, and are less likely to benefit from them. This may have something to do with the fact that lessons delivered online or through digital resources lack the face-to-face interaction between teacher and student that provides a more personal experience

DIGITAL TRANFORMATION IMPACTS ON CLASSROOMS

1 – Boosting Digital Equity

Digital equity in education means that **all students can have access to learning resources** in an easier and less expensive way than the traditional one. Thanks to the digital transformation, students can check out only one device – a smartphone, a tablet or a laptop – to access many different contents at school, at home, wherever they are and regardless of their economic status.

2.Customized Experience

Promoting the digital transformation process in schools means allowing students to access the benefits of customization, **building big-data fuelled curriculums to shape their future.** Today, special programs are able to suggest what courses a learner should take depending on the courses he previously completed, his scores and his aptitude.

3 – A Worldwide Audience

Digital learning platforms are literally breaking the geographical and cultural boundaries, allowing teachers to **bring the knowledge beyond the classroom**, potentially to a worldwide audience. Other children and young students from all around the world can attend and contribute to lessons, creating global conversations through so many different points of view on the same topic, with the result of an enriched educational experience.

4 – Modular Learning

One of the most powerful and positive impact on education provided by the digital transformation in schools is the possibility **to build learning modules in a faster way**. Educators can prepare their courses and programmes using the best content previously

developed by other colleagues, from their same department but also from other institutes.

5 – High-Quality Educators

Teachers' training is fundamental to the success of digital transformation in schools. It needs prepared educators who feel empowered by the use of digital tools and want to use them in the most efficient way, without missing any possible opportunity given by the new education technologies.

ADVANTAGES OF TEACHER-LED CLASSROOM TRAINING

This is an efficient method of presenting a large volume of study material to students.
It is a personal, face-to-face type of training.
Everyone gets the same information at the same time.
It is cost-effective

DISADVANTAGES OF TEACHER-LED CLASSROOM TRAINING

Sometimes it is not interactive.
Success of the lectures depends on the effectiveness of the teacher.
More of memorising and mugging up for the students, instead of enhancing their metal skills and abilities.
Time taking.

TEACHING METHODS

METHOD	TEACHER	STUDENT
Verbal explanations	Dictate	Listen and Copy
Writing during class	Blackboard/whiteboard& Chalk/pen	Copy notes
Pre-written Transparencies	Overhead projecter	Copy notes
Pre-prepared slides	Multimedia projector& Computer	Printed material
E-learning	Provide learning material	Learn through participation

ADVANTAGES OF DIGITAL EDUCATION

- Digital education has certain distinct advantages. Firstly, its reach and accessibility allow it to permeate to a much larger segment of the society which would have otherwise remain deprived. This alone would enable the woefully overstretched education system to keep pace with the growing needs and aspirations of an increasingly urbanizing society
- Secondly, the 24x7 access to lessons and the self-taught construct allows students flexible learning times and pursue education alongside other commitments
- Thirdly, uniform content and learning packages will ensure uniformity of knowledge dissemination and eliminate vastly varying standards between good and better institutions. With hand held internet devices available with most students, the engagement with teachers would extend well beyond conventional school timings
- Digital education also promotes minimizing infrastructure and maximizing outcomes, significantly reducing the costs of education and making it more affordable.

DISADVANTAGES OF DIGITAL EDUCATION

The digitalization of higher education mainly affects the second segment: dissemination," Pierre explains. "The truth is that online teaching is enhanced in some aspects but also downgraded in others. You can compare online learning to a textbook, but textbooks in which people will also be talking to you and asking you questions. However, unlike a textbook, online learning provides more tutoring and guidance as well as a rhythm (thanks to deadlines), with greater incentive to be assiduous about covering the material.

Digital Transformation in schools is not about innovation or technology, it's more a matter of culture. Through a digitalization of the learning experience, both teachers and students are able to improve their skills, with a common goal: to create a more engaging and effective education process.

DIGITAL EDUCATION BENEFIT THE CHILD

Interactive: With digital education, classroom teachings have become more fun and interactive. Children tend to be more attentive. They are not only listening but also viewing it on the screen which makes their learning all the more effective. Here, sounds and visuals go hand-in-hand which is easy for the child to grasp.

Attention to details: Interactive online presentations or practical sessions in educational content through interactive screen time help the students to pay more attention to details which enable them to complete their activities on their own.

Quick completion: Using tabs, laptops or notepads, instead of pens and pencils, motivates children to complete their tasks quickly.

Vocabulary: Active online screen time helps students develop language skills. By reading ebooks or accessing study materials online, they learn new words and expand their vocabulary.

Learn at his pace: Many a times, a student hesitates to ask a question to his teacher in classroom training. But with digital education, even if he does not understand anything at one go, he can attend the recorded sessions to clear his doubts. Technology enables a student to learn at his own pace.

User-friendly: The best thing about digital education is that it is user-friendly. You can very well access your curriculum wherever you are. You can learn on the go. Even if you miss certain classes, you can access the class notes and download files from the school website.

Learn on his own: Also, nowadays, online study materials are easily available. Even if the entire education system is not digitalised, yet students can leverage the power of digital content depending upon their capabilities. So students, can access exclusive online study modules of various subjects, which help them to enhance their knowledge even without a teacher.

External guidance: With online education, students can even further connect with distant counsellors and faculty to seek guidance or resolve queries

DISADVANTAGES OF DIGITAL EDUCATION FOR CHILDREN

- However, digital education also has its disadvantages:
- Expensive: First of all, it is expensive. That is why we see that most International schools and schools that have digital education are far more expensive than the regular schools.
- Infrastructure: To have digital education means, you need to have a proper infrastructure not only at schools but also at homes, particularly affordable broadband.
- No fixed schedule: Online learning requires much better management and rigid schedules, whereas in traditional classroom training, everything is as per a fixed schedule.
- Reduces creative abilities: Getting all answers on the net easily also reduces the children's own creative abilities.

- Lazy approach to studies: This may lead to poor study habits and can develop in children a lazy attitude. Digital education can also make children forget the basic way of studying. Even for simple problems and homework, they are used to seeking help from the net.
- Security: Last but not the least, going online does not mean that your child is only looking for study materials. There are many things which a child might come across that are not good for him

NEW PHASE OF LEARNING HAS BEGUN AND INVOLVES VARIOUS ADVANCED TECHNIQUES

- **Online courses**

  Want to learn a new language or maybe to get trained in some specific course, but have no time to cover the distance? Online courses are developed by experts who have unmatched proficiency in their specific field and can give you the experience of real-time learning by designing their own online course.

- **Online exams**

  Digitization gave way to the online exam, making the examination process convenient for both teachers and students.

- **Digital textbooks**

  Also prevalent with other names like e-textbooks and e-texts, digital textbooks provide an interactive interface in which the students have access to multimedia content such as videos, interactive presentations, and hyperlinks.

- **Animation**

  This is a captivating approach in which students learn in a better manner. By offering a visual representation of the topic, students grasp the concept in a more understandable manner.

Even the toughest topics can be presented in a simplified way with the help of animation.

CONCLUSION

The educational publishing segment has made exciting and innovative advancements with technology, advancements that the rest of the publishing world must adopt to fit the needs of their future readers. Over the past three months, Digital Education Watch has tracked significant events in the industry by looking specifically at which businesses are making exciting and innovative advancements with technology**.** Technology has always been present in society. It transforms how we communicate, travel, and educate younger educations. In recent years, the computer has both helped and hindered the spread of knowledge from educators to students. Technology was important to the field education long before the computer age.

This way the digitization of education industry in the 21st century proves to be a boon to our society. Digitization has no doubt changed our education system, but we cannot say that it has diminished the value of our old time classroom learning. Neither do we want something so priceless to turn into dust. The best part about the digitization of education in the 21st century is that it is combined with the aspects of both; classroom learning and online learning methods. Digitization in education has also proved to be the right method for saving resources. Digital technology has started playing a vital role in transforming the education sector and taking it to the next level. Its future in education is promising but it will rely on what is being used and how it's being used.

In order for technology to function successfully, the students, teachers, and institutions need to be trained on the tools and make the most benefits of it by integrating technology with the education system.

REFERENCE

1. *https://scholarship-positions.com*
2. *https://en.wikipedia.org*
3. *https://gosa.georgia.gov*
4. *https://whatis.ciowhitepapersreview.com*
5. *https://www.indiatoday.in*
6. *https://digitaleducationwatch.wordpress.com*
7. *https://www.edsys.in*
8. *https://elearningindustry.com*
9. *http://eu-acerforeducation.acer.com*
10. *https://www.bartleby.com*
11. *https://www.hindustantimes.com*
12. *https://greengarageblog.org*
13. *https://Www.Maps of india.com*
14. *https://Www.researchgate.com*
15. *https://Www.entrepreneur.com*
16. *Wikramanayake G.N "e-learning industry" changes in teaching and learning style.*
17. *https://eu-acerforeducation.acer.com*
18. *https://education.siliconindiamagazine.com*
19. *https://techstory.in*
20. *https://execed.hec.edu*
21. *https://suyati.com*

DIGITALIZATION IN FUTURE GENERATION

***Dr. S. M. SRILANGA MEENAKSHI**
Assistant Professor of Commerce,
Manonmaniam Sundaranar University Constituent College,
Kadayanallur.

ABSTRACT

Digitization is the process of converting information from a physical format into a digital one. Digitalization is the process of leveraging digitization to improve business processes. Digitization is the process of converting information from a physical format into a digital one. When this process is leveraged to improve business processes, it is called digitalization. The results of this process are called digital transformation.

Keywords: *Digitalisation, Labour*

INTRODUCTION

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". Unlike analog data, which typically suffers some loss of quality each time it is copied or transmitted, digital data can, in theory, be propagated indefinitely with absolutely no degradation. This is why it is a favored way of preserving information for many organisations around the world.

Digitalization is the integration of digital technologies into everyday life by the **digitization** of everything that can be digitized. The literal **meaning of digitalization** gives an apparent idea of development and technology dependent world. **Digitization** is the process of converting analog signals or information of any form into

a digital format that can be understood by computer systems or electronic devices. The term is used when converting information, like text, images or voices and sounds, into binary code.

In business, digitalization most often refers to enabling, improving and/or transforming business operations and/or business functions and/or business models/processes and/or activities, by leveraging digital technologies and a broader use and context of digitized data, turned into actionable, knowledge, with a specific benefit in mind. It requires digitization of information but it means more and at the very center of it is data.

While digitization is more about systems of record and, increasingly systems of engagement, digitalization is about systems of engagement and systems of insight, leveraging digitized data and processes. In general, digitalization is seen as the road of moving towards digital business and digital transformation, as well as the creation of new – digital – revenue streams and offerings while doing so. And that requires change. This is why many people interchangeably use digitalization and digital transformation

OBJECTIVES

1. To understand current scenario in future generation
2. To study about digitalization in future generation
3. To study about children in future generation
4. To understand about future generation of adolescence
5. To study about digitalization in future generation in India
6. To provide conclusion based on the study

METHODOLOGY

Details and Information collected for the purpose of the study was collected from the secondary source viz., Websites, Published articles, Thesis and Dissertation, Journals, Magazines etc .

CURRENT SCENARIO IN FUTURE GENERATION

The term digitization is often used when diverse forms of information, such as an object, text, sound, image or voice, are converted into a single binary code. The core of the process is the compromise between the capturing device and the player device so that the rendered result represents the original source with the most possible fidelity, and the advantage of digitization is the speed and accuracy in which this form of information can be transmitted with no degradation compared with analog information.

There is a common misconception that to digitize something is the same as digital preservation. To digitize something is to convert something from an analog into a digital format. An example would be scanning a photograph and having a digital copy on a computer. This is essentially the first step in digital preservation. To digitally preserve something is to maintain it over a long period of time.

Digital preservation is more complicated because technology changes so quickly that a format that was used to save something years ago may become obsolete, like a 5 1/4" floppy drive. Computers are no longer made with them, and obtaining the hardware to convert a file from an obsolete format to a newer one can be expensive. As a result, the upgrading process must take place every 2 to 5 years, or as newer technology becomes affordable, but before older technology becomes unobtainable. The Library of Congress provides numerous resources and tips for individuals looking to practice digitization and digital preservation for their personal collections.

Digital preservation can also apply to born-digital material. An example of something that is born-digital is a Microsoft Word document saved as a .document file or a post to a social media site. In contrast, digitization only applies exclusively to analog materials. Born-digital materials present a unique challenge to digital preservation not only due to technological obsolescence but also because of the inherently unstable nature of digital storage and

maintenance. Most websites last between 2.5 and 5 years, depending on the purpose for which they were designed.

Many libraries, archives, and museums, as well as other institutions struggle with catching up and staying current in regards to both digitization and digital preservation. Digitization is a time-consuming process, particularly depending on the condition of the holdings prior to being digitized. Some materials are so fragile that undergoing the process of digitization could damage them irreparably; light from a scanner can damage old photographs and documents. Despite potential damage, one reason for digitizing some materials is because they are so heavily used that digitization will help to preserve the original copy long past what its life would have been as a physical holding.

Digitization can also be quite expensive. Institutions want the best image quality in digital copies so that when they are converted from one format to another over time only a high-quality copy is maintained. Smaller institutions may not be able to afford such equipment. Manpower at many facilities also limits how much material can be digitized. Archivists and librarians must have an idea of what their patrons wish to see most and try to prioritize and meet those needs digitally.

Labour resources and funding also limit digital preservation in many institutions. The cost of upgrading hardware or software every few years can be prohibitively expensive. Training is another issue, since many librarians and archivists do not have a computer science background. Intellectual control of digital holdings presents yet another issue which sometimes occurs when the physical holdings have not yet been entirely processed. One suggested timeframe for completely transcribing digital holdings was every ten to twenty years, making the process an ongoing and time-consuming one.

But technological progress is also offering opportunities for marked transformation in most jobs and business models, including an increasing reliance on independent or online platform labour,

improvement in skills anticipation and matching capabilities and improved diagnostics with the assistance of Big data and algorithmic decision making.

DIGITALIZATION IN FUTURE GENERATION

Digital technologies are helping utilities optimize their operations, giving them detailed, actionable insights, and more precise control over their assets. Utilities that use digital optimization will quickly improve power plant efficiency, reduce fuel costs, and increase power capacity, ultimately driving more profitability. They can also extend turndown while maintaining emissions compliance to improve availability, expand fuel flexibility and responsiveness, and decrease start times. Digital is also contributing to improved physical wellbeing. Emergence of digital health care and smart devices are assisting in disease prevention and management. With health trackers, people are proactively opting to manage their health and lifestyle. It will not be long before digital therapeutic technology becomes immersive and revolutionizes personal health management.

Digital technologies are not the culprit — it is how we use or abuse them. For example, generally, individuals who are socially active online tend to be socially active in their offline world and vice versa. Digital technologies may accentuate that impact. Children who actively engage online through hobby and interest groups tend to display more civic involvement and engagement offline. This is because children who encounter diverse backgrounds, gain confidence in dealing with strangers and broaden their skill set are generally more optimistic toward life.

While digitization offers advantages, such as the potential of working remotely and increasing efficiency, it also present concerns for millennials. Respondents cited a decrease in direct communication and fewer jobs as examples. One millennial said that a potential implication of a digital era would be fewer jobs available, adding, “it will be a luxury to have a physical workplace.”

Additionally, the research showed an awareness among young people of the negative impact that digitization can create on leisure (20%).One millennial described the potential impact of a digital era by saying, "Digitization is forcing us to rethink work in general, even more with the rise of cognitive computing. We are going to see a shift in the skills we value."

However, a recent article in the Financial Times highlighted that, while companies are increasingly trying to upgrade their technology in an effort to boost productivity, the link between digital and productivity is not yet apparent. Additionally, a recent article in the Economist highlighted that a consequence of the digital era may be to increase efficiency and to facilitate going about our daily jobs – a point that most millennials undertaking this research agreed with.

Digital media is so pervasive that consumers have access to information any time and any place they want it. Gone are the days when the messages people got about your products or services came from you and consisted of only what you wanted them to know. Digital media is an ever-growing source of entertainment, news, shopping and social interaction, and consumers are now exposed not just to what your company says about your brand, but what the media, friends, relatives, peers, etc., are saying as well. And they are more likely to believe them than you. People want brands they can trust, companies that know them, communications that are personalized and relevant, and offers tailored to their needs and preferences.

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". Unlike analog data, which typically suffers some loss of quality each time it is copied or transmitted, digital data can, in theory, be propagated indefinitely with absolutely no degradation. This is why it is a favored way of preserving information for many organisation around the world

The digital revolution touches all aspects of our human and physical world in many varied and constantly changing ways. Whether you wish to read the news, comment on line, watch a film, or buy insurance. We are highly connected through data and this connection has the capacity to empower citizens and enrich our lives. It is easy to take for granted this digital ecosystem and it is hard to imagine a time before it. Yet as an industry it is in its infancy when compared to printing or manufacture. And this is very clear when one starts to investigate the ethical and environmental impacts of digital. The industrial revolution took huge strides in advancing humanity, but it never intended to pollute our rivers or air.

CHILDREN IN FUTURE GENERATION

The term started to be used in reference to the impact the currently living generations have on the world future generations will live in, the world they'll inherit from humans living today. Current generations have a moral obligation to provide for sustainable living conditions not just to the future of their own children. but indirectly also to the future of their children's children. This is referred to in the most widely quoted definition of sustainability as a part of the concept sustainable development, is that of the Brundtland commission of the United Nations on March 20, 1987: "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

As a society, we're increasingly feeling the importance of technology's prevalence in our education institutions. Whether it is increasing awareness of the need for digital skills as the world of work evolves, or the expectation for digital natives to have access to the same technology they experience at home, there is an increasing need for education institutions to be more digital. That said, change is happening. In the capital alone, 13 universities already offer degrees in AI, machine learning and other related industries. The question is whether there is enough being done to develop digital

skills at an early age. We need to engage children with these emerging technologies from a young age, and collaboration between the public and private sectors will be critical to achieving this.

Younger generations are growing up in a digital world. Their first phones are often smart phones, with a range of apps and functions; even toddlers are using tablets and screens to entertain themselves. We are introduced to technology from a younger age at home and expect to have the same interaction with it at work and at school. With only 33% of consumers believing that the UK is ready for a digital future, more needs to be done to make sure the people expected to inhabit it are ready. Working with the private sector is the best way for the public sector to harness the expertise, technology and real world experience needed to keep make digital education impactful and relevant. Not only does working with the private sector help give schools access to physical technology, but also to real world experiences and qualifications. In a partnership with examining body OCR, Fujitsu has developed a new A-Level equivalent qualification designed to prepare the next generation to become the digital workforce of tomorrow. The vocational course enables 16-18 year olds to apply their ICT, technology and mathematical knowledge through a project-based syllabus, preparing them to apply this same knowledge in their future career.

Working in collaboration with public and private sector, using resources available from the former and tech savviness from the latter, we can help our future generations prepare for a workplace that needs the digitally intelligent.

The education sector has a duty, along with the private sector, to provide students with the best possible start in life, equipping them with the most up-to-date and relevant education. It is therefore important that education takes up the challenge for digital readiness by providing them with the necessary skills early on. The world belongs to digital natives. Working in collaboration

with public and private sector, using resources available from the former and tech savviness from the latter, we can help our future generations prepare for a workplace that needs the digitally intelligent.

India attained independence from the foreign rules close to seven decades back. But, still the internal independence is sought. Independence of expression and reaching out to the authorities appeared to be a distant dream until late but now after the initiative called Digital India it seems no dream is too big. India, in the last two decades has seen a new dawn with the help of computers and technologies. The coming of e-mails and internet has saved a lot of time and paperwork, in many ways it is a good sign as it will not only reduce the work hours but also make better the quality of work done eradicating the human errors and lags. Digital India is an initiative taken by the present Government of India to integrate the government departments and connect the people of India directly with all the departments to address the issues in a better way. It aims at ensuring that the government services are made available to citizens electronically by reducing paperwork and a lot of time. This initiative also includes plan to connect rural areas with high-speed internet networks. The project is scheduled for completion by 2019.

This will give the rural youth more opportunities to interact with people from different walks of life and evolve better as an individual. Digital India will empower youth to know the government and its various departments better and to analyze the loops and strength unguided by political issues. The user friendly interface will connect more people to technology and the platform will act as a thought-pool. The agro-based youth will also be able to gather more knowledge about the policies of the government and be benefitted by the same. More openings in the IT sector and more customer oriented openings for youngsters will be made available as the older generations are not yet tech friendly as the youth is.

The youngsters will be able to connect directly with the government departments just at a click of mouse or may be a press

of a button. The middlemen will be eradicated and thus ideas and complaints will reach the higher officials directly in much lesser time and the matters will be resolved and addressed by the right people at the right time. With the coming of start-up venture supports, the youngsters will get a chance to demonstrate their enterprising skills with the help of venture capital provided to them.Research and training based projects will help youngsters to learn better and the digital platform will connect a wider talent pool to discuss and exchange ideas and innovative solutions.

The online mode of education will gain new dimensions and the rural youth which by far has no access or limited access to the various courses available, will be having a better learning experience. Last but not the least, E-commerce is better understood and utilized by the youth. In the past decade we have seen n number of business portals doing really well, enabling the goods being delivered at the doorsteps without much hassle and the same shall gain new horizons with more and more self employed people and e commerce sites coming in the Indian market allowing a higher income to the deserving.

FUTURE GENERATION OF ADOLESCENCE

Digital technology can be a game changer for disadvantaged children, offering them new opportunities to learn, socialise and make their voices heard – or it can be yet another dividing line. Millions of children are left out of an increasingly connected world. As digital technology rapidly evolves, so can the risks children face online – from cyberbullying to misuse of their private information to online sexual abuse and exploitation.

"In the digital era, we as young people assume the identity of not only citizens but rather netizens (a user of the internet) of the digital world. As the report highlights, the inequities of society are now beginning to mirror themselves in the digital space. A glaring digital divide prevents children and adolescents from LMIC's accessing the services of the internet like their counterparts from

other parts of the world. Furthermore, the report also highlights how young females who may be battling the gender gap in their everyday lives also have to struggle to sustain a digital presence.Digital technology carries immense potential to solve some of the developmental challenges faced by young people. On the other hand, the negative consequences of the digital wave threaten the privacy of young people who may not be equipped with levels of digital literacy necessary to assess as well as adopt measures of protection."

The next generation is one of the first to have grown up in a world where every aspect of their communication, entertainment, social activity, private and school lives are entwined with technology. **Digital future** refers to the idea that all businesses will operate digitally in the **future**. There are any number of reports available dictating the **digital future** of business. But before it becomes a meaningless buzz phrase, what does **digital future** mean. Starting at the top.

Digital transformation is the profound transformation of business and organizational activities, processes, competencies and models to fully leverage the **changes** and opportunities of a mix of **digital** technologies and their accelerating impact across society in a strategic and prioritized way, with present and future.Advantages of digital technology include easy access to information, improved **communication** and convenience in education. Digital technology promotes innovation and creativity, and typically ensures efficiency and **productivity**.

Digitalization: When digitalizing **processes**, it means that some **digital** technologies are being used in the **processes** and managing data digitally **Process** (digitized data and digitally native data), in order to convert **processes** (not simply **digitization**) into **processes** more efficient, more productive, more profitable. Adolescent growth and social development shape the early development of offspring from preconception through to the post-partum period through distinct processes in males and females. At a

time of great change in the forces shaping adolescence, including the timing of parenthood, investments in today's adolescents, the largest cohort in human history, will yield great dividends for future generations.

DIGITALAIZATION IN FUTURE GENERATION IN INDIA

Digital India is a campaign launched by the [Government of India] to ensure the Government's services are made available to citizens electronically by improved online infrastructure and by increasing Internet connectivity or by making the country digitally empowered in the field of technology. The initiative includes plans to connect rural areas with high speed networks. Digital India consists of three core components: the development of secure and stable digital infrastructure, delivering government services digitally, and universal digital literacy.

The vision of Digital India is to transform the country into a digitally empowered society and knowledge economy. It would ensure that government services are available to citizens electronically. It would also bring in public account ability through mandated delivery of government's services electronically.

Digital procurement automates repeatable tasks to boost efficiency and reduce costs; it equips stakeholders across the business with real-time insights and analytics through artificial intelligence (AI) and easy-to-use online tools; it deploys new and smarter ways to infuse data models to enrich day-to-day operations and decision making.

Digitizing procurement is just the first step in an ongoing journey. It's imperative that organizations start their digital procurement journey now to ensure they're not left behind in the race for **Digitization** is the automation of existing manual and paper-based processes, enabled by the **digitization** of information; from an analog to a digital format. You'll notice that today **digitization** is indeed mainly used in a context of document

capture and scanning, and in a context of **digitizing business** processes.

Digitalization India is a campaign launched by the Government of India to ensure that Government services are made available to citizens electronically by improving online infrastructure and by increasing Internet connectivity or by making the country digitally empowered in the field of technology.

In the next two to four years, we'll see the further evolution to next generation digital procurement, where data from outside a business's own ecosystem will provide even more advanced decision making.

The **objective** of the **Digital India** Group is to come out with innovative ideas and practical solutions to realise Hon'ble Prime Minister Narendra Modi's vision of a **digital India**. Prime Minister Modi envisions transforming our nation and creating opportunities for all citizens by harnessing **digital** technologies.

Digital India is a campaign launched by the Government of **India** to ensure the Government's services are made available to citizens electronically by improved online infrastructure and by increasing Internet connectivity or by making the country digitally empowered in the field of technology.

The **Digital India** programme has been launched with an aim of transforming the country into a digitally empowered society and knowledge economy. The **Digital India** would ensure that Government services are available to citizens electronically. The vision of Digital India is to transform the country into a digitally empowered society and knowledge economy. It would ensure that government services are available to citizens electronically. It would also bring in public **accountability** through mandated delivery of government's services electronically.

Digitization is the conversion of data into a **digital** format with the adoption of technology. Adoption of **digitalization** is very important for the **banking** sector. By embracing **digitalization**, **banks** can provide enhanced customer

services. This provides convenience and helps in saving time. **Digital banking** is there to customers digitization (or moving online) of all the traditional **banking** activities and programs that historically were only available to customers when physically inside of a **bank** branch. This includes activities like: Money Deposits, Withdrawals, and Transfers.

Digital banking involves high levels of process automation and web-based services and may include APIs enabling cross-institutional service composition to deliver **banking** products and provide transactions. It provides the ability for users to access financial data throught desktop, mobile and ATM services. **Digital Transformation** is far beyond just moving from traditional **banking** to a **digital** world. It is a vital change in how **banks** and other financial institutions learn about, interact with and satisfy customers.

CONCLUSION

While digitization offers advantages, such as the potential of working remotely and increasing efficiency, it also present concerns for millennials. Respondents cited a decrease in direct communication and fewer jobs as examples. One millennial said that a potential implication of a digital era would be fewer jobs available, adding, "it will be a luxury to have a physical workplace." Additionally, the research showed an awareness among young people of the negative impact that digitization can create on leisure (20%). One millennial described the potential impact of a digital era by saying, "Digitization is forcing us to rethink work in general, even more with the rise of cognitive computing. We are going to see a shift in the skills we value."

There is a general sense that while the internet still offers great opportunity and that many, particularly in the developing countries see the internet as an important means to empower communities, there is also a strong sense of disillusionment with what the internet brings. The tool that

was, in the words of one participant, supposed to democracratise society is now being used as a means for its control. This disillusionment is felt even more profoundly in developed countries where the internet is on the cusp of changing significantly through new technologies and persistent security challenges.

The most important theme running through the responses is the imperative of putting the human, the user, first. Above all there is an unshifting conviction that the internet must continue to benefit people and create new social and economic possibilities, thereby fulfiling the premise on which it was built. Hyperconnectivity promises to reshape business, public services and other entities through greater efficiencies, immediacy, reach and delivery. With more comprehensive and effective data collection, analysis and use we can expect revolutionary change to come to healthcare, education and other services, but none of this will be of any value if people are not the ones who benefit.

REFERENCES

1. *https://edtechnology.co.uk/Blog/preparing-the-younger-generation-for-the-future-workplace/*
2. *https://en.wikipedia.org/wiki/Future_generation*
3. *http://www.indianyouth.net/how-can-the-digital-india-empower-the-youth/*
4. *https://workingmouse.com.au/innovation/digitisation-digitalisation-digital-transformation*
5. *https://en.wikipedia.org/wiki/Digitization*
6. *https://www.coursehero.com/file/p6ia022/Conclusion-The-rise-of-digital-media-has-given-the-people-to-communicate-around/*
7. *http://www.cedefop.europa.eu/en/events-and-projects/projects/digitalisation-and-future-work*

8. *https://www.digitalistmag.com/future-of-work/2016/12/01/young-people-view-impact-of-digitization-04723399*
9. *https://en.wikipedia.org/wiki/Digital_India*
10. *https://www.omicsonline.org/open-access/effects-of-green-marketing-strategy-on-the-financial-and-nonfinancialperformance-of-firms-a-conceptual-paper-2223-5833-1000254.php?aid=80204*
11. *https://sloanreview.mit.edu/article/the-convergence-of-digitalization-and-sustainability/*
12. *https://www.google.com/search?ei=0G96XI3FFonbvATGga*
13. *https://www.google.com/search?ei=0G96XI3FFonbvATGga*
14. *https://www.accenture.com/in-en/insight-digital-procurement-process*
15. *https://adolescentsourfuture.com/2017/12/children-in-a-digital-age/*
16. *https://www.quora.com/What-is--of-Indiadigitalization*
17. *https://gle.com/search?q=objective+of+digital+india&oq=objective+of+di&aqs=chrome.*
18. *https://www.google.com/search?ei=t5d8XN3NE5ncrQH4p=dig6wI&qitalization+in+banking&oq=digitali&gs_*
19. *https://www.gartner.com/it-glossary/digitalization/*
20. *https://www.google.com/search?ei=t5d8XN3NE5ncrQH4p=dig6wI&qitalization+in+banking&oq=digitali&gs_l=psy*

DIGITALIZATION OF BANKING SECTORS

***Dr. KANCHANA VARGHEESE**
Assistant Professor and Head,
St. Judes College,
Thoothoor.

ABSTRACT

The banking landscape as we know it is changing. A new wave of technology is revolutionising the way customers engage with their finances. The recent introduction of open banking and the Payments Services Directive 2 (PSD2) regulation is accelerating this transformation by placing power in the hands of customers. Such as spending habits and regular payments, with authorised third-party providers if customers wish to do so. To navigate this unchartered reality, banks must ensure their digital offering is fit for purpose.

Keywords: *Digital Banking, Customer*

INTRODUCTION

Digital banking is part of the broader context for the move to online banking, where banking services are delivered over the internet. Digital banking involves high levels of process automation and web-based services and may include APIs enabling cross-institutional service composition to deliver banking products and provide transactions. **Digital banking** is the digitization (or moving online) of all the traditional banking activities and programs that historically were only available to customers when physically inside of a bank branch.

OBJECTIVES

1. To understand about Digitalization of Banking Sectors.
2. To know about Digitalization of Banking Sectors.
3. History of digital Banking
4. Digitize customer experience.
5. Role of digitalization in Banking in India
6. Benefits of Customer
7. Digital banking trending in India
8. Scope of digital banking in India
9. Future of digital banking in India
10. Benefits of the bank
11. Major storm clouds on the digital banking horizontal digital transformation
12. Banking industry oversimplifying digital transformation
13. Decoding digital banking of future in India
14. Emerging technologies in banking in India
15. To provide conclusion based on the study about Digitalization of Banking Sectors.

METHODOLOGY

Details and Information for the purpose of the study was collected from the secondary sources viz., websites, published articles, thesis and dissertation, journals, magazines etc…..

MEANING OF DIGITIZATION

Digitization is the process of converting data into digital format. Digitalization means the adoption of technology. But these two words are being used interchangeably.

ROLE OF DIGITIZATION IN BANKING

- Banks are not just a part of our lives, but have a significant role in our daily lives. For many, day will not end without

at least a single financial transaction. Thus banks always try to adopt latest technologies to enhance customer experience.

- Digitization is not an option for banking industry, rather it is inevitable because every industry is being digitized and banking sector is no exception.
- Mobile banking is increasing at a fast pace more than online banking.

ADVANTAGES OF DIGITIZATION IN BANKING

- Improved customer experience.
- Reduction of costs for banks and customers as well by using ATMs, cashless transactions etc.
- With more digital data available with banks, they can take data-driven dynamic decisions by using digital analytics. This benefits both customers and banks.
- Technology is non-discriminatory. Everyone will be treated same at banks.
- Number of customers will be increased for banks because of the increased convenience of banking.
- Digitalization reduces human error.
- Need of handling large amounts of cash will be reduced.
- Opening and maintaining bank accounts are never been this easier.
- Repetitive tasks will be eliminated by automation.
- Rural and urban gap will be eliminated.
- With the increasing cashless transactions, fake currency threat will be reduced.
- Productivity will be increased.

DISADVANTAGES OF DIGITIZATION IN BANKING

- Digitalization reduces the effort of employees and hence results in loss of jobs.
- Some bank branches may cease to exist with the increasing use of online banking.
- Banks will be more vulnerable to cyber attacks.
- Privacy may have to be compromised. No one can hide crores of rupees in banks and just act middle class.

- These disadvantages are just temporary. Loss of jobs will be compensated through creation of new jobs such as cyber security, research team for innovation in technology etc.
- It's not that banks are going to have less work, but it's just that the role of retail banking sector changes.

MAJOR BENEFITS OF DIGITAL BENEFITS

- Business efficiency - Not only do digital platforms improve interaction with customers and deliver their needs more quickly, they also provide methods for making internal functions more efficient. While banks have been at the forefront of digital technology at the consumer end for decades, they have not completely embraced all the benefits of middleware to accelerate productivity.
- Cost savings - One of the keys for banks to cut costs is automated applications that replace redundant manual labor. Traditional bank processing is costly, slow and prone to human error, according to McKinsey & Company. Relying on people and paper also takes up office space, which runs up energy and storage costs. Digital platforms can future reduce costs through the synergies of more qualitative data and faster response to market changes.
- Increased accuracy - Traditional banks that rely mainly on paper processing can have an error rate of up to 40%,

which requires reworking. Coupled with lack of IT integration between branch and back office personnel, this problem reduces business efficiency. By simplifying the verification process, it's easier to implement IT solutions with business software, leading to more accurate accounting. Financial accuracy is crucial for banks to comply with government regulations.

- Improved competitiveness - Digital solutions help manage marketing lists, allowing banks to reach broader markets and build closer relationships with tech savvy consumers. CRM platforms can track customer history and provide quick access to email and other forms of online communication. It's effective for executing customer rewards programs that can improve loyalty and satisfaction.
- Greater agility - The use of automation can speed up both external and internal processes, both of which can improve customer satisfaction. Following the collapse of financial markets in 2008, an increased emphasis was placed on risk management. Instead of banks hiring and training risk management professionals, it's possible for risk management software to detect and respond to market changes more quickly than even seasoned professionals.
- Enhanced security - All businesses big or small face a growing number of cyber threats that can damage reputations. In February 2016 the Internal Revenue Service announced it had been hacked the previous year, as did several big tech companies. Banks can benefit from extra layers of security to protect data.

A digital bank represents a virtual process that includes online banking and beyond. As an end-to-end platform, digital banking must encompass the front end that consumers see, the back end that bankers see through their servers and admin control panels and the middleware that connects these nodes. Ultimately, a digital

bank should facilitate all functional levels of banking on all service delivery platforms. In other words, it should have all the same functions as a head office, branch office, online service, bank cards, ATM and point of sale machines.

The reason digital banking is more than just a mobile or online platform is that it includes middleware solutions. Middleware is software that bridges operating systems or databases with other applications. Financial industry departments such as risk management, product development and marketing must also be included in the middle and back end to truly be considered a complete digital bank. Financial institutions must be at the forefront of the latest technology to ensure security and compliance with government regulations.

DIGITALIZE CUSTOMER EXPERIENCE

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

Digitalize Operations Banks will become more digital! As customers, competitors, and even regulatory agencies push in this direction, the promise of anytime, anywhere banking with transparency and convenience will ultimately bring together all the elements of banking in the digital world. Banks need to identify

opportunities by looking at the overall customer life cycle, focus on improving experiences and enable better customer services. Banking does not guarantee customer loyalty due to customer behavior. A fluctuation of loyalty has been noticed in the industry, furthermore loyalty is not the key answer, but it is experiences. Customer experience and customer service needs to be enhanced in a coherent way: from cross channel and multichannel to omnichannel. The practice of digital marketing and customer service strategies need to be engaged to acquire, retain and delight customers

IMPACT OF DIGITALISATION ON THE BANKING SECTOR

One of the tendencies in the banking industry is that the largest banks have invested a lot in digital and into the future, while many smaller and regional banks have more difficulties to keep up as they are more dependent on technology vendors. As a result, the market share is clearly moving toward the large players because they have more means.

As another by-product of the digital era of changes, the financial sector is under constant pressure from new Fintech disruptors. Given that the disruptors tend to be startups focused on a particular technology or process, they are more flexible and faster when it comes to adopting innovative solutions and offering more personalized user experience.

THE DIGITAL BANKING PROMISE

Ideally, digital banking combines the benefits of two worlds: a new customer experience on the outside and an efficient, effective operating model on the inside—both enabled by digitization and the underlying technologies, processes, and structures (

On the outside, customers benefit from fair prices with increased transparency and comparability. Banks meet their needs with immediate, high-quality interactions, and transactions are performed quickly and securely. Purchasing a product no longer requires 14 days. Customers are proactively informed about a rich spectrum of personalized products and services, including financial advice, new opportunities, and peer comparisons. Overall, customers enjoy the banking experience, and they are happy to hear from their bank (or non-bank).

Making all of this possible will require support from the inside. The underlying operating model will need reshaping, with lean channel and organization structures in place to allow for fast processing. Decision and governance processes will need to be streamlined, with a new more-agile culture that has the right spirit to support a superior customer experience. An integrated IT infrastructure will be needed to meet all requirements, with fast computing to allow for super-fast processing. Last but not least, digital banking will change the way revenue is generated. As customer centricity becomes more important, deep customer insights will open up new sources of revenue, such as third-party advertising and customers paying for value-added services.

BANKS ON THE MOVE

Banks are cautiously approaching these new challenges. While digitization is making internal processes more efficient, it is only slightly enhancing the customer offering with value-added services such as wallet solutions, personal finance management tools, and an omni-channel experience. Few solutions on the market are fully mature.

ONLY SMALL STEPS SO FAR: ENHANCING PRODUCTS AND SERVICES

The first steps on the digital banking journey have been primarily focused on adding to the existing offering using new, technology-enabled services to increase the convenience and value for customers. The most prominent examples are mobile apps, e-wallet solutions, and personal finance management (PFM) tools (see figure 2). In particular, mobile banking and PFM are well received by consumers, with download rates reaching 60 percent of the customer base in most regions. For example, on the mobile banking front, USAA, a U.S.-based banking and insurance provider, recently released an app with a Siri-like virtual mobile assistant, which allows customers to use voice commands to navigate and complete more than 200 actions from their smartphones. In Spain, CaixaBank offers a bill-management PFM service called ReciBox. Compatible with computers, tablets, and mobile devices, the free service helps customers organize their bills, and if there is an unusually large bill or insufficient funds, ReciBox will warn customers via text message or email before funds are deducted from their accounts. However, few banks offer more advanced PFM tools, with functions such as peer comparisons, automated product recommendations, and predictive capabilities.

Other solutions such as artificial intelligence, video and chat functions for advisory services, crowdfunding, peer-to-peer payments, and social investing are acknowledged but not considered mature. Some banks have more interest in these topics and have collaborated with technology companies to explore possible new business models. For example, Citigroup, Royal Bank of Canada, and Australia's ANZ Bank have all announced plans to work with IBM's Watson, the robot that made its name by beating humans on the television quiz show Jeopardy, to enhance customer advisory experiences.

Video advisory service is among the most controversial topics: While the United States and Nordic and Benelux countries strongly believe in this technology and customers are welcoming it, other regions such as Spain, Italy, France, and Germany are offering it to a less enthusiastic audience.

In general, enhancements to the product and service portfolio are just beginning. The next level will certainly encompass more complex services based on insights from various sources, such as social networks, mobile devices, apps, and harmonized internal data. Leading examples can be seen in innovative financial technology players around the world. For example, Vodafone and Safaricom created M-PESA to serve the largely unbanked Kenyan population. Users pay cash into their account at an agent, such as a gas station or supermarket, and then use their mobile phone to pay retailers or other individuals. M-PESA serves as an alternative to bank accounts and credit cards, which is especially appealing to the rural population. In 2012, about a third of the Kenyan population used M-PESA. Another focus point will be more effectively leveraging crowd intelligence to support existing advisory offers. Today, advisory concepts still center around the branch staff, either physically or by video. The next level could go even further, using renowned industry experts and incorporating the opinion of several thousand customers. Similar to Amazon's automated next-best-product decision support systems, banks will use the purchase decisions of peers to help customers make a decision. Consider social investing: There are already several financial technology companies offering social trading or investing services that allow customers to trade synchronously with top traders based on their track record and the number of followers. Although banks have not gone that route yet, they are positioned to take a leading role in the advisory-driven investment business. Depending on the success of the new players, banks will have to react in a timely fashion and

adjust their offerings accordingly, but this is not expected to occur within the next few years.

SUGGESTIONS

1.These above-mentioned disadvantages are just temporary. Loss of jobs will be compensated through the creation of new jobs such as cybersecurity, research team for innovation in technology etc.
2.The security can be made tight by an advanced protecting system.
3.The network and connections can be provided and the quality of network system should be improved.
4.The government of India has to take care in making availability network throughout India.
5.The process of digital banking should not be complex.

CONCLUSION

With the increasing usage of smartphones, digitization of banking sector is inevitable to catch up the increasing expectations of the world. It indeed reduced human errors and increased convenience. But the fact that cyber threats are on the rise, banks must be very careful and should be prepared to handle cyber attacks. The decision for banks to add more digital solutions at all operational levels will have a major impact on their financial stability. While not all banks are in a position to make quick changes to IT infrastructure or the architecture on top of it, banks aiming to be disrupters can move toward broad end-to-end automation can do so over about a six-month time frame.

Many banks have a lot of work to do in the area of digitizing their processes. Even though the banking industry is slowly undergoing a rethinking, the customer's expectations are often already one step ahead of what financial institutions offer. The number of parameters to be taken into account in loan decisions is growing continuously, while at the same time the decision-making processes must be accelerated and made more transparent to guarantee profitability. A significant improvement can be achieved

if credit applications are always processed in the context of the entire customer history. The corporate lending business particularly offers high automation potential. By using a digital loan template, complex structures and facts can be automated step by step and considerable acceleration in the loan processing can be achieved.

The mobile and wireless market has been one of the fastest growing markets in the world. The arrival of technology and the escalating use of mobile and smart phone devices, has given the banking industry a new platform. This worldwide communication is leading a new generation of strong banking relationships. The banking world can achieve superior interactions with their public base if they accommodate all their customer needs. Conveniences of services plus outside locations like ATMS are crucial to every banks success. Meeting all challenges including safety and security are perfect examples of good banking strategies. Online banking is certainly here to stay. Online banking is a necessity for the bank's that we studied and others in order for them to stay in business. While its existence doesn't necessary give them a competitive edge because it is so common place, it is truly a cost of doing business. As we venture into the future, the internet will undoubtedly continue to change the banking industry.

REFERENCES

1. *https://www.hcltech.com/technology-qa/what-are-the-advantages-of-digitalization-in-banking*
2. *https://www.raconteur.net/sponsored/digitalisation-driving-future-banking*
3. *https://www.quora.com/What-is-the-role-of-digitization-in-banking-industry*
4. *https://en.wikipedia.org/wiki/Digital_banking*
5. *https://www.groupdiscussionideas.com/role-of-digitization-in-banking/*
6. *https://www.enterpriseedges.com/role-of-digital-banking-india*

7. *http://iijsr.com/data/uploads/1025.pdf*
8. *http://www.forbesindia.com/article/weschool/digital-revolution-in-the-indian-banking-sector/47811/1*
9. *https://en.wikipedia.org/wiki/Digital_banking*
10. *https://www.knowis.com/blog/why-digitalization-is-a-major-topic-for-banks*
11. *http://cib.db.com/insights-and-initiatives/white-papers/Digitalisation_and_the_Future_of_Commercial_Banking.htm*
12. *https://www.e-zigurat.com/innovation-school/blog/digitalization-in-banking-industry/*
13. *https://www.atkearney.com/financial-services/article?/a/banking-in-a-digital-world*
14. *https://www.streebo.com/blog/role-of-digitization-in-banking-industry/*
15. *https://www.swissbanking.org/acl_users/credentials_cookie_auth/require_login?came_from=http%3A//www.swissbanking.org/en/topics/digitisation/digitisation-1*
16. *https://www.hdfcbank.com/personal/learning-center/Digital-Banking/What-is-Digital-Banking*
17. *https://www.avoka.com/blog/what-is-digital-banking/*
18. *https://www.finextra.com/blogposting/10390/understanding-digital-banking*
19. *https://thefinancialbrand.com/79589/digital-banking-trends-transformation/*
20. *https://tech.economictimes.indiatimes.com/news/corporate/decoding-the-digital-bank-of-the-future-for-india/64449636*
21. *http://www.forbesindia.com/blog/digital-navigator/emerging-technologies-in-digital-banking-in-india/*
22. *https://sites.google.com/site/bankingindustryandtheinternet/financial-information*

ROLE OF DIGITIZATION IN BANKING IN INDIA

***J MAHIL KAMALAM**
Department of Commerce,
Women's Christian College, Nagercoil.
Affiliated to Manonmaniam Sundaranar University,
Tirunelveli, Tamilnadu, India.

ABSTRACT

Digital banking is also called internet banking or online banking. When a bank provides its services online and customers can make transactions, submit requests, and handle other banking activities online, it is called digital banking. The first bank in India to offer internet banking was the ICICI bank in 1996. Since then a number of other banks have followed suit and today most of the banks provide online banking facilities.

Keywords: *Bank, Cheque, Customer Service*

DIGITAL BANKING IN INDIA

Banks in India as a whole were very reluctant to adopt the changes brought about by technological advancement. A number of factors brought about the mechanization and digitization in banking industry in India. The putting in place standard cheque encoders was the first step forward in digital transformation in banking. Magnetic Ink Character Recognition (MICR) helps in the sorting and processing of cheques with each bank branch having an MICR code. The next step was more of a necessity than an innovation. Banking is a repetitive job, and therefore a labor intensive one where the worker is prone to making mistakes. In order to minimize errors and speed up the process, banks began using computer technology with standalone personal computers and then set up their own local area networks (LAN).

As the networks grew and banks began to connect together, Core Banking came into being. Centralized Online Real-time Exchange (CORE) banking thus allowed customers to perform financial transactions and access their account from any of the participating bank's branches. These services made it easier for customers to operate their accounts and slowly led to the coining of the phrase: 'Anytime, Anywhere Banking.' Then Automated Teller Machines (ATMs) arrived on the scene, and electronic fund transfers were made possible.

Online banking and Telebanking made their appearance in the 2000's and different modes of online fund transfers were instituted such as Real Time Gross Settlement (RTGS), Immediate Payment System (IMPS), National Electronics Fund Transfer (NEFT), and National Electronic Clearing Service (NECS). Recent years have seen the growth in mobile banking services and other innovative services online.

The role of digitization of banking in India that began in the 1980's has certainly come a long way. However there is still a long way to go in the digitization in banking industry and a number of hurdles to cross before we are able to ensure end to end digital banking in India as we will discuss in this article.

BENEFITS OF DIGITAL BANKING

Consider a few benefits of digital banking

1. Customer Service:

With internet freely available everywhere, all a customer needs to access his account is a device and internet connectivity. It saves him time and expense as he no longer has to travel to a bank to carry out transactions. He does not have to wait in unending queues only to find that he will have to go to a different counter to get his job done. Online services make it possible for him to sit in the comfort of his home or office, or in fact even in a vehicle while

travelling, and carry out transactions without having to wait for anything.

2. 24×7 Availability:

The customer is able to check his bank records anytime he wishes and a number of banking services are available to him round the clock. Transferring money is easier, quicker, and safer.

3. Time Constraint:

A number of services required waiting for considerable periods. Banks had boards put up at their branches specifying the time required for different services. Even simply cashing a cheque took time. But with digital banking it is instant, with no time constraints.

4. Online Bill Payments:

This is a feature that saves customers a lot of time and expense. Customers do not have to carry cash and queue up to pay their utility bills or other bills.

5. Lower Overheads:

Digital banking has drastically reduced the operating costs of banks. This has made it possible for banks to charge lower fees for services and also offer higher interest rates for deposits. Lower operating costs have meant more profits for the banks.

6. Banking Benefits:

With the increased convenience of anytime, anywhere banking, the number of customers has increased for banks. Human error in calculations and recordkeeping is reduced, if not eliminated. With records of every transaction being maintained electronically, it is possible to generate reports and analyze data at any point, and for different purposes.

IMPORTANCE OF DIGITAL BANKING IN INDIA

The benefits of digital banking stress its importance by themselves. However the socio-economic conditions we face add to the importance of digital banking in India. With a high rate of crime and corruption, digital banking is a safe way to handle financial transactions. The lax and cavalier attitude of public servants makes it a real hassle to sometimes even pay for utility bills and so the online bill payment feature of digital banking is really helpful. Many cities are known for pickpockets who eye bulged wallets, and hence the option of paying by credit or debit card, or through online wallets is a much safer option.

DIGITAL BANKING TRENDS IN INDIA

Digital India in the banking sector has grown sharply in recent times. Some trends we see in digital banking in India are:

1. Increase in Customers:

The government's encouragement to use electronic wallets has contributed much to people adopting the use of technology in financial transactions. We see a rapid increase in the use of credit/debit cards as well as electronic wallets and the trend will continue.

2. Chatbots:

A number of banks have already employed chatbots in their customer care operations. We will see a steady increase in the number of chatbots employed as well as improvements in their speed of response, quality of interaction and the quality of services rendered.

3. Merge Physical and Digital Process:

Many banks today offer a mixed physical and digital process to their customers. The customers could walk into the bank and then use devices there to carry out their transactions. In the

Indian context we will certainly see a steady increase in this kind of service especially in the rural areas.

4. Mobile Technology:

The proliferation of mobile phones and the easy and cheap availability of internet has meant that the banking sector had to provide digital services via mobile phones. A number of banks have developed apps to help customers handle banking transactions on their mobile phones. This trend will only continue. We can look forward to additional features and services being provided, and the user experience being more streamlined.

5. End to End Digital Marketing:

A number of customers are already using devices to handle their banking tasks. Banks have come to realize that digitization is the only way forward. Hence a number of banks have already started on the path of end to end digitization, in their effort to provide all kinds of services over the internet, resulting in paperless transactions.

SCOPE OF DIGITAL BANKING IN INDIA

There are a number of factors that affect the scope of digital banking in India. Some of them are enumerated below:

1. Education:

A lack of knowledge about banking in itself is a hurdle for many. Also many parts of India still struggle with a very low literacy rate. The lack of knowledge about computers and the use of the internet is a challenge.

2. Fear:

There are a number of unfounded fears individuals have about the use of the internet. Cases of fraud are often blown out of

proportion, and this adds to the fear factor, resulting in a number of ill-informed customers being nervous to use digital banking.

3. Training:

There is much resistance from within the banking industry itself. Employees are not trained in the use of innovative technology. They are unable to utilize different features of digital banking and hence are wary about its implementation.

This having been said, the challenges are steadily being overcome. Gen Y today, even in rural areas, has become computer literate and wants the conveniences and advantages of digital banking.

FUTURE OF DIGITAL BANKING IN INDIA

What can we look forward to on the scene of digital marketing in India? Technologically India is a very progressive country. We do not only adopt new technology but are constantly innovating; we are at the cutting edge of technology. Therefore the future of digital banking in India is very bright and we can look forward to new innovations and services from the banking sector.

We have only discussed some aspects of digital banking in India, or digital India in the banking sector, and the future of digital banking in India. Digital banking should not be looked at just as a technological advancement. Neither is it a customer service initiative. It is a revolution in how the banking industry functions and the services it renders.

WHAT IS THE DIFFERENCE BETWEEN ONLINE AND DIGITAL BANKING?

For the most part, these two words are synonyms. But, we define online banking a bit more narrowly: online banking primarily focuses on remote deposits, money transfers, bill pay, and basic online management of accounts. Other synonyms for online banking include internet banking, virtual banking, and e-banking. So, online banking focuses on digitizing the "core" aspects of banking, but digital banking encompasses digitizing every program and activity undertaken by financial institutions and their customers.

BENEFITS TO THE BANK

- Lower operating costs through;
  - the elimination of costly back-office processing operations,
  - fewer (or ideally no) errors,
  - smaller branch footprint (the typical branch can become a kiosk affair, providing technology interfaces for the client to use plus the ability to deal with banking specialists via a video link) – a minimum number of actual staff will be required.
  - concentrating banking/business specialists in a single centre, who are then available to clients via a technology link (either on their mobile, pc or via a kiosk branch).

Operating cost savings of between 20% to 40% could be achieved this way, according to industry experts. Cutting costs has the opposite effect on profits – they go up.

- Dumping legacy systems;
  - Make no mistake - one of the biggest drawbacks to going 'Digital' is this irrational clinging to

legacy systems (developed in the 1960s and 1970s) that hold progress back. Banks plead the huge cost of making the change. They are wrong. The ultimate costs of not making the change are far greater.

BENEFITS TO THE CUSTOMER

- Improved services and product offerings;
    - 24/7 bank services and availability through your mobile, pc or kiosk branch,
    - 'smart banking' applications that allow ALL transactions to be completed from the device of your choice, from beginning to end (with clear instructions and fail safe mechanisms),
    - access to a FULL range of services (savings, investments, insurance, loans, mortgages, foreign currency, etc.),
    - new useful client services such as warnings, notifications, budgeting, expenditure analyses, savings programs, calculators (you name it – the range is endless),
    - Lower charges (and therefore cheaper banking),
    - Banking that meets the client's needs (not the banks).

MAJOR STORM CLOUDS ON THE DIGITAL BANKING HORIZON

From the outside, the banking industry looks as strong as it has since the financial crisis of 2008. Banks have benefited from a modest increase in interest rates, continued strong loan demand and relatively calm regulatory waters. Over the past several years, improved cost controls and the benefit of new technologies and automation have kept profitability strong. But the real challenge may be ahead for most organizations.

There has never been a greater need for traditional financial services organizations to become 'digital banks'. Until now, most banks and credit unions have simply put a nice veneer on legacy systems and products, ignoring many of the internal changes that are needed to compete effectively with smaller fintech and big tech organizations. Once considered competitors, fintech firms have become part of the mainstream banking system, allowing institutions to innovate beyond what was possible in the past.

Globally, the retail banking industry is being expected to deliver a seamless digital customer experience, as found in our 2019 Retail Banking Trends and Predictions report. Investments in digital technologies have increased to respond to consumers' constantly evolving demands, but the changes made by most institutions only scratches the surface of what is needed.

Consumers' experiences with firms like Amazon, Google, Apple and Facebook have upped the ante. Deloitte's recent global digital banking survey across 17 countries showed that banking consumers have a stronger emotional connection to these technology brands than to their banks. According to Deloitte, "Some of these companies' ability to blend experiences from the physical and digital worlds is considered a good model for banks."

We are even seeing some organizations building digital banking units outside of the traditional banking infrastructure.

DIGITAL TRANSFORMATION STARTS FROM THE INSIDE OUT

Digital transformation in financial services requires a departure from traditional operating models in order to develop hyper-personalized financial products and services. This movement calls for leveraging new technologies to create more frictionless ways of interacting and transacting. This transformation includes the

use of the blockchain and the digitization of virtually all back-office processes, all within the constraints of an evolving regulatory environment.

Unfortunately, very few organizations have the modern applications or back office structure that can meet these business requirements. The legacy systems most organizations still use can't provide the technical agility that is needed. In fact, many organizations are building partial or sub-standard digital solutions rather than end-to-end solutions that benefit both the consumer and the financial institution.

Digital transformation requires a different business structure, new technologies as well as people who are trained and given the power to lead the digital transformation process. Instead of a 'project' approach, there needs to be an acceptance of the risk involved in a major transformation process, understanding the scope of the endeavor, sourcing opportunities, and operational modifications that will be needed.

The process of digital transformation is not easy. It requires a shift from legacy IT systems and traditional business models towards integrated, agile, customer-centric processes. Possibly more importantly, this transformation requires a cultural adjustment and mindset shift in application development and data flows. All of this with a focus on quality and compliance adherence, and security protocols to ensure privacy and data integrity.

According to Forrester, "It's hard to avoid back-end transformation: Without it, a bank can't offer true digital banking to its customers. However, to win acceptance from business leaders, back-end transformation needs to encompass more than a pure technology update."

A NEED FOR SPEED

To remain competitive in the future, financial organizations will need a modern digital platform that can support current and future digital solutions. While there is a need for speed, digital transformation efforts will require careful planning and time. Resources must be invested in agile delivery while also supporting a restructured back office process that eliminates many of the steps that traditional banks are used to.

Most organizations will not initiate the required changes all at once, but will implement digital transformation projects incrementally. In the end, the result will be a vastly improved customer experience as opposed to just better reports. An emerging approach to managing transformation is to create a digital banking subsidiary with a separate business model, new business processes and new technology. The rationale is that the 'mother ship' is too encumbered with legacy systems, processes and people to succeed quickly.

BANKING INDUSTRY OVERSIMPLIFYING DIGITAL TRANSFORMATION

According to the research associated with the 2019 Retail Banking Trends and Predictions report, only half of the organizations surveyed stated they have a strategy in place for digital transformation. Another 28% state that their organization has a strategy, but that the strategy has not been implemented.

DECODING THE DIGITAL BANK OF THE FUTURE FOR INDIA

The Indian banking industry has become a poster child having taken rapid strides over the past decade or so. Once playing catch-up with leading global practices, the industry cut in half the number of unbanked individuals in India between 2011-2015, adding almost 300 million first time bank account holders. Cut to

2018, and the game has moved rapidly into the world of digital. The digital revolution has swept across industries, and the financial services space has seen the winds of change blow into it. Financial services companies are operating almost in a marketplace under siege, a new paradigm where the fundamental definition of how customers experience and interact with a bank is being challenged and redefined.

Customer expectations are being defined by their experiences elsewhere. From online e-commerce, to taxi-hailing services, to food delivery, to social networking, even to online dating, quick product and service delivery combined with seamless user experience is the new normal. Why should banking services, just as important as any of the other services listed above, be left behind? The answer may lie in the archaic business models and cost structures of traditional banks that are more suited to the old economy and the slow pace of the industry to embrace newer technologies and engagement modes.

Add to that the proliferation of bank accounts, higher spending power and favourable demographics, where over half the population is under the age of 30 and is technologically savvy and willing to experiment with new products & services that offer them more. Further, Digital India, which seeks to transform the country into a digitally empowered society, supports rapid digitization of India's financial services. Evidence of this is IndiaStack, an API platform initiative through which every Indian citizen is tagged with unique digital identifiers. Traditional banks operate on a brick and mortar model with multiple layers of hierarchy, huge staff and equipment costs, utilities and other costs which are passed on to the consumer to keep the former's profit margins intact. To justify these cost structures, banks either do not service sectors where margins are thin or where they can, price products at inflated costs.

They are also paving the way to a whole new level of customised personal banking. Imagine a situation where every customer has a dedicated wealth manager cum banker at his disposal 24x7. Digital banks are making this a reality by turning the technology. Supported by Natural Language Processing skills and Artificial Intelligence (AI), chatbots and virtual agents are able to give Level 1 support at costs impossible for traditional banks to meet. And this is just the beginning. AI-based chatbots can be assigned to every single customer, customising engagement through its ability to continually exploit deeper insights, contextual understanding and real-time learning, while still operating at far lower costs.

No wonder then, that an IBM Institute for Business Value (IBV) survey of 2,000 banking leaders across 31 countries, including 150 from India, reveal that as many as 43% of respondents expect banking functions to become highly commoditized in the near future.

We are not far off from the day when a digital bank would not only offer payments through cryptocurrencies but also offer a range of cross-platform services to every single customer. Unlike traditional banks, digital banks are free from the legacies of the past and can design their operations, processes and strategies keeping the customer at the center.

CONCLUSION

India has already seen the emergence of digital banks like 811 (from Kotak Mahindra) and Digi Bank (from DBS), which together today have a miniscule market share, but the adoption curve for such services is only steep at the beginning. We are not far from the day when consumer banking will be dominated by digital banks.

To be sure, most traditional banks want to have these competencies and go digital, but their approach seems to be muddled. While some approach digital banking purely from a technology standpoint, others perceive it as a new way of engaging with customers or a new way of doing business.

Digital banking is about all this but also much more. It calls for a complete change of mindset among bankers, but the clock has already begun ticking for them. Fintech startups have already begun eating away at their markets from the bottom. They can either stand in the way of this digital revolution in financial services, or join in.

REFERENCES

1. *https://www.hcltech.com/technology-qa/what-are-the-advantages-of-digitalization-in-banking*
2. *https://www.raconteur.net/sponsored/digitalisation-driving-future-banking*
3. *https://www.quora.com/What-is-the-role-of-digitization-in-banking-industry*
4. *https://en.wikipedia.org/wiki/Digital_banking*
5. *https://www.groupdiscussionideas.com/role-of-digitization-*
6. *http://www.digitalindia.gov.in/content/transformingindia-ebook*
7. *http://www.thebetterindia.com/27331/12-projects-you-should-knowabout-under-the digital-indiainitiative*
8. *http://www.indiacelebrating.com/government/digital-india*
9. *Economic Times*
10. *Business Standard*
11. *Financial Express*

DIGITILIZATION AN IMPACT OF INDIAN ECONOMIC

***Mr. S.SELVANATHAN**
Assistant Professor of Commerce (SF),
V.H.N.S.N College (Autonomous), Virudhunagar

ABSTRACT

Digital Economy or the internet economy is increasingly influencing our social and economy activities and even the way we live. The internet and its accessory activities including Information and Communication Technologies have given birth to new products, services, jobs, enterprises and even markets. World's largest firms – Google's Alphabet, Facebook and Amazon are from the digital world.

INTRODUCTION

Besides the internet and the internet of things, several new inventions are about to alter the way we live and economically engage. Artificial intelligence, machine to machine communication, sensor technology, robotics, big data, cloud computing, 3 D printing etc., indicate that the role of digital technologies in economic activities are going to rise. In this context, there is increasing attempts to identify the size and importance of the digital economy in terms of its output, job creation, enterprise creation etc.

Digital economy refers to an economy that is based on digital computing technologies, although we increasingly perceive this as conducting business through markets based on the internet and the World Wide Web. The digital economy is also sometimes called the Internet Economy, New Economy, or Web Economy. Increasingly, the digital economy is intertwined with the traditional economy, making a clear delineation harder.

The digital world that we live in today is that where every civilian has a bright prospect to transform the lives in many ways that were hard to envision just a couple of years ago. It is the outcome of several innovations and technology advances. Today, every nation wants to be fully digitalized that will empower society in a better manner. The 'Digital India' programme, an initiative of honourable Prime Minister Mr. Narendra Modi, will emerge new progressions in every sector and generates innovative endeavours for geNext. The motive behind the concept is to build participative, transparent and responsive system. All educational institutions and government services will soon be able to provide I-ways round the clock. Digital India will provide all services electronically and promote digital literacy. Companies all over the world desire to invest in Digital India-the 21st century India, as a growth opportunityGlobal investors like Sundar Pichai, Satya Nadella, Elon Musk have supported Modi's Digital India initiative.

OBJECTIVES

- To understand about Digitalization An Impact Of Indian Economic
- To know about Digitalization An Impact Of Indian Economic
- To provide conclusion based on the study Digitalization Digitalization An Impact Of Indian Economic

METHODOLOGY

Details and Information for the purpose of the study was collected from the secondary sources viz., websites, publised articles, thesis and dessertation, journals, magazines etc…

SOME OF THE KEY INITIATIVES OF DIGITAL INDIA WERE

- Starting a Digital Locker to help Citizens of India store their important govt ids such as PAN Card, Passport, Voter id card and education mark sheets. All the citizens need to use their locker is an Adhaar Card.
- MyGov Portal to improve good governance by help from citizen engagement.
- ORS portal to help citizens of the country to handle online appointments, pay online fees of doctors and govt hospitals.
- Design Framework to allow the w digital signing of documents. and a few other initiatives were taken to grow the country with the help of latest technology.

THE IMPACT OF DIGITAL INDIA WAS EXPECTED TO

- Reduce Corruption.
- Increase speed of public sector services rendered to citizens of the country.
- Decrease documentation.
- Provide an easy to manage online storage to store all documents.
- Provide simple and easy to use cloud space on the internet.

Our governments for years have worked towards creating an economy which is more reliant on the internet and less on the paper-based economy. The incumbent govt provided a single name "Digital India" to all the digitization, digitalization and other initiatives taken by govt to have a positive impact on our economy.

DIGITALIZATION AND INDIAN ECONOMY

We have unknowingly been a part of Digitization for last so many years. We have all been a part of the Digital World where we have touched the Digitalized business processes by using in our day to day's life. Think of activities such as making railway reservation online, buying Air tickets, bus tickets online or making payments by credit card, debit card, etc.

For years, promoting Digitalization has been a Governmental initiative to give all services to every citizen on their web portals or electronically, to make the transactions transparent and smooth. The real changes because of Digitalization are becoming visible today because of the push by govt., which is expected to usher in a new era (like how computerization did in public as well as private sector almost two decades back). Things like paper currency notes will soon be a thing of past. Slowly we are moving towards Digitalization of Indian Economy with new steps and initiatives. There are certain factors which compel us to follow Digitalization in our routine life. On the contemporary, we need certain essential elements to materialize Digitalization in our routine life.

ROLE OF DIGITALIZATION IN BANKING SECTOR IN INDIA

With digital transactions, one needs to have a proper bank account and essential documents. Banks are the part and parcel of our day-to-day life. Banking includes ATM transactions, online payments, and transfers. Because of Digitalization of their processes, banks have saved costs by improving their processes. Customers have been able to avail benefits such as ATMs, cashless transactions using Credit Card, Debit Cards, etc.

For example, earlier it was impossible for anyone to get an unsecured business loan because of the high risk involved and documentation required to provide the same.

Today, banks are going out of the way to adopt the latest technologies to enhance customer experience. Another marvellous example of digitalization is mobile banking where banking can be done on mobile phones. The feature allows you to literally use your bank account from your mobile phone.

Digitalization in Banks has not only reduces human errors and save time but has led to cashless transactions which have reduced the circulation of fake currency in the market. Thereby, leading to a positive impact on our economy. 2016 is the year which will be always linked to demonetization for the withdrawal high amount denomination Rs. 500 and Rs. 1000 of India's currency in circulation on November 8. After Demonetization was announced, cashless payments in October 2016 increased 22%, when compared to October 2015, indicating that Indians have been progressively more accepting of different digital payments modes since 2015.

IMPACT OF DIGITALIZATION ON INDIAN ECONOMY

Digitalization has played a vital role in flourishing the Indian economy. The biggest example is the job opportunities created in the country for youth. In addition to the above, "make in India" drive has given an immense push to youngsters to start new startups and think of creative ideas to contribute to digitalization of India.

Use of plastic money gives freedom as well as security to citizens of the country because it works on technical grounds. Digital payments will be helpful to the global world. Since cash is the primary mode of transactions in money laundering and terrorism funding, a digital society would discourage such laundering and terrorism.

DEMONETIZATION AND DIGITIZATION OF THE INDIAN ECONOMY

The government's decision to ban Rs. 500 and Rs. 1,000 notes on November 8, 2016, to curb black money and terrorism financing through counterfeit notes has evoked mixed reactions. Demonetization has affected the daily lives of millions, especially those in what is called the informal sector—domestic workers, small traders, and farmers—but what its impact will be in the long term remains to be seen.

In the short term, demonetization has led to the rapid adoption of e-wallets, and credit and debit cards as a means of payment. Such digital payments have in a large way replaced cash transactions at least in urban areas.Many economists and socio-political researchers also believe that the country's path to digitization was smoothened and the time to achieve a cashless society has been compressed.

INDIA AND A CASHLESS ECONOMY

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 large fintech companies, popularly called 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.

Slowly, but surely, digital transaction are becoming popular. 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. Even those who have bank accounts may not have easy access to a physical branch or may hesitate before using a bank account because of a lack of familiarity and apprehension about usage.

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.

According to a Google and The Boston Consulting Group report, Digital Payments 2020, the total payments made through digital payment instruments in India are likely to be about US$500 billion by 2020, which is 10 times the current level. The report also estimates that non-cash transactions, which currently constitute about 22% of all consumer payments, will overtake cash transactions by 2023.

Also, as the number of 3G and 4G internet connections rises and the price of mobile devices decreases, the number of internet users will increase at a fast rate. A Deloitte and Associated Chambers of Commerce & Industry of India (ASSOCHAM) study forecasts that India will have 600 million internet users by 2020.

DIGITIZATION AND THE INDIAN INSURANCE INDUSTRY

The insurance industry in India is on the brink of a digitally enabled transformation. As the use of smart, digital products and services increases, customers' demand for fast, efficient, seamless, and intuitive products and services are increasing.

To enable and provide such services and products, all the stakeholders—insurance companies, distribution channels, customers, technology providers, etc.—will need to collaborate and network. In other words, an ecosystem of multiple stakeholders will power the next spurt of growth in the insurance industry, and the role of digital payments in facilitating the growth of such ecosystems is vital.

At the same time, digitization and the development of an ecosystem will make all stakeholders more vulnerable to data loss and theft. The increase in the use of virtual networks and intranets, and "aggregation" of cyber risk due to concentration of virtual supply chains will make cyber risk and security important enterprise-level risks that will need to be addressed. There is also the risk of business interruption loss due to interconnected digital data supply chains.

Also, mobile wallet companies' and payment banks' reliance on technology, online connectivity, and requirement for high volume of remittance transactions to offset the low margin per transaction will make them vulnerable. From our observations, these companies are becoming increasingly concerned about such cyber frauds. The complex supply chains, operational risk inherent in interconnected supply chains, and cross border partnerships will likely drive stringent insurance coverage requirements for participating companies.

Cash continues to be an attractive means of payment because the payer and the payee do not have to pay any additional charges and is anonymous. The reason why digital payment has not become popular with small merchants in India is cost and poor infrastructure. At the least, merchants have to pay for a POS machine. Nonetheless, the World Payments Report, prepared by Capgemini and BNP Paribas, estimates that global non-cash volumes will increase 10.1% to 426.3 billion in 2015. The highest growth is likely to be in Emerging Asia (31.9%), Central Europe, the Middle East and Africa (15.7%) and mature Asia-Pacific (11.6%).

WHAT IS CASHLESS ECONOMY?

A Cashless Economy is an economy in which all types of transactions are carried out through digital means. It includes e-banking (Mobile banking or banking through computers), debit and credit cards, card-swipe or point of sales (POS) machines and digital wallets.

INDIA IS TAKING A STEP ON THE ROAD TO CASHLESS ECONOMY:

The government has been working hard to promote digital payment systems. So far, it seems to be working: the government has reported a 400-1,000% increase in digital transactions since the demonetization.The National Payments Corporation of India, together with the RBI, has launched UPI ("united payment interface").

ACHIEVING A CASHLESS ECONOMY ON RURAL AREAS:

•Rural areas are home to two thirds of the country's population.

•Number of connected rural consumers is expected to increase from 120 million in 2015 to almost 315 in 2020.

•Over 93% of people in rural India have not done any digital transactions.

•The government has taken steps including announcing zero balance accounts for people. but growth of Bank branches has been low.

CHALLENGES IN INDIA MAKING A CASHLESS ECONOMY:

There are a number of obstacles in making India a cashless economy. Some of them are as under:-

- Currency denominated economy
- Transactions are mainly in cash
- ATM use is mainly for cash withdrawals and not for settling online transactions
- Limited availability of point of sale terminals. (pos machines)
- Mobile Internet penetration remains weak in rural India

The challenges to go digital for Indian Economy.The possible benefits of digital transactions seem very lucrative and productive. But the challenges in the way of going digital are also very big in the context of India. The biggest hurdle for instant adoption of digital mode of payments is the internet penetration in India. The internet facilitates the online transactions conducted between buyers and sellers. From the seller's end, the Point of sales(POS)terminal requires swiping machine supported by a high speed internet platform. While from the buyer' send, it requires a mobile phone, availability of internet and an electronic chip card. Both the ends require good speed internet accessibility but the internet penetration in India is still very less. The other major hurdles are the low literacy rates in rural areas and availability of electricity that make the situation tougher to encourage usage of digital transactions. The other challenges to go digital are as follows:1. Financial security is the major challenge in way of digital transactions. And it becomes more difficult when the users are not literate and technology challenged as well. Many of the customers do not remember their security pin and password as well.

According to the digital security company Gemalto, more than 1 billion personal records were compromised in 2014.2. A large part of the population is still outside the banking net and not in a position to reduce its dependence on cash.

According to a 2015 report by PricewaterhouseCoopers, India's unbanked population was at 233 million. Even for people with access to banking, the ability to use their debit or credit card is limited because there are only about 1.46 million points of sale which accept payments through cards. 3. About 90% of the workforce, which produces nearly half of the output in the country, works in the unorganized sector. And this sector generally understood the language of cash and cash related transactions. This sector is affected the most because of the on-going currency swap. 4. The cash transaction is a general preference for conducting financial transactions in India. Merchants and dealers prefer not to keep records in order to avoid paying taxes and buyers find cash payments more convenient. Although, digital transactions have mounted in recent times, a meaningful transition will depend on a number of things such as awareness, technological developments and government intervention. For example, mobile wallets have seen notable traction, and it is possible that a large number of Indians will move straight from cash to mobile wallets. A study by Boston Consulting Group and Google in July,2016 noted that wallet users have already surpassed the number of mobile banking users and are three times the number of credit card users ("Making India a cashless economy", 2017).

5. A study published in Hindustan times highlighted that since September,2016 the 10 million accounts held only Re. 1 and even this little amount was shown to reduce bank branch's share of zero-balance accounts. Moreover in a survey of PMJDY customers conducted by a financial inclusion consultancy found that merely 33% of all beneficiaries were ready to use their Ru-pay cards and the rest of others were reluctant due to complex procedure of

activating the Personal Identification Number (PIN) (Khosla, 2017). The electricity fluctuations and unevenly spread of internet connectivity further eroded customers' trust in Automatic Teller Machines (ATM) and Point of Sales (POS) machines. The other highlights of the report are given below:

- The card acceptance infrastructure struggles to keep pace with India's growing population in 2014. The highlights of the report is given below:
- There were 18ATMsand13commercial bank branches per 100,000 adults were available in comparison, the number in Brazil was 129 and 47 respectively.
- Between 2013 and 2015, debit cards grew twice as fast as the number of POS machines and one-and-a-half times the number of ATMs, with the majority of new infrastructure taking root in urban centres.
- India's modern banking system maps neatly onto social and spatial inequalities. He found that,only18% of all ATMs are deployed in rural India.
- The impact of mobile wallets in hastening the transition to a cashless economy is overstated. Merely26%of India has internet access, and there are only 200 million users of digital payment services.
- The World Bank's Global Findex shows that Indians are significantly less familiar with digital banking –the use of credit or debit cards, making transactions using mobile phones, and using the internet to pay bills –than their peers in middle-income nations ("India is far away from being a cashless economy. Here's why", 2017).Other Challenges in making India a cashless economy
- Availability of internet connection and financial literacy.
- Though bank accounts have been opened through Jan Dhan Yojana, most of them are un-operational. Unless people start operating bank accounts cashless economy is not possible.
- India is

dominated by small retailers. They don't have enough resources to invest in electronic payment infrastructure.

- The perception of consumers also sometimes acts a barrier. The benefit of cashless transactions is not evident to even those who have credit cards. Cash, on the other hand, is perceived to be the fastest way of transacting for 82% of credit card users. It is universally believed that having cash helps you negotiate better.
- Most card and cash users fear that they will be charged more if they use cards. Further, non-users of credit cards are not aware of the benefits of credit cards.
- Indian banks are making it difficult for digital wallets issued by private sector companies to be used on the respective bank websites. It could be restrictions on using bank accounts to refill digital wallets or a lack of access to payment gateways. Regulators will have to take a tough stand against such rent-seeking behavior by the banks.

STEPS BY THE INDIAN GOVERNMENT TO IMPROVE DIGITALIZATION

Digital infrastructure's backbone is the availability of high-speed internet. With the introduction of better and faster mobile internet connections, the services through Digitalization have been delivered in an efficient way to the citizens of the country. In addition to the above, the government is taking initiatives like "Aadhar Card" or Digital identification for every citizen. The move is expected to give unique and authentic identification to every citizen. This step will mean faster subsidy distribution, reduction of corruption and some other impacts on our economy.

Digital India has made mobile banking easy. Next important step taken by Government is the introduction of a Common Service Centre. A secure public cloud to share information (I will not vouch for its safe status but as per govt, it is safe).

At the end of the day, Digitization is helping businesses streamline their processes by slowly taking away dependency away from paperwork. Banks, I think are the biggest beneficiary of digitalization. Since they now have processes where less staff can do more work.

Digital India has empowered its citizen by giving them digital power like during the journey you don't have to carry any physical documents. You can show a soft copy of the ticket and identity card which fulfils the purpose.

Government is pushing Digitalization in the country by promoting e-services to every citizen. Another initiative – Digital India is all about Promoting development and creating an opportunity for new India in terms of job, technology, and transparency through Digitalization.

I am a firm believer in the idea of digitalization as this is one step which will gradually turn us into an economic powerhouse by cutting down paperwork and decrease our dependency on govt employees which will help cut down corruption. To see the immediate impact of digitization, all we must do is look at how income tax filing and income tax return processes have been streamlined.

Today, you do not have to go and stand in front of an income tax officer to get an income tax refund. Time is not far when Digitization will change the phase of the Indian economy.

BENEFITS OF DIGITIZATION IN GROWTH OF INDIA'S DIGITAL ECONOMY

India has about 46 million internet users and this number is expected to increase by 7 to 8 percent. India therefore represents a growth economy that offers a large market potential for global

players. The internet economy, which is also referred to as the digital revolution is expected to generate new opportunities for market growth and jobs. It is also expected that the digital revolution will create many opportunities for businesses in the next thirty to forty years.

India has provided leadership and shown promise in the use of digital technologies over the past ten years. It is now time for India's leaders to fuel and support the digital economy in order to turn it into a vital growth enabler. Prime Minister Narendra Modi's launch of Digital India is welcome. The objective of this program is to connect the rural areas with high speed internet and to improve digital literacy. The digital revolution has already begun taking place in India. The vision of a digital India has already brought about inclusive growth in the areas of manufacturing, electronic services, and job opportunities.

The main areas that have experienced a positive impact and ensured the growth of the digital economy in India include:

-Empowering citizens digitally.

-The opportunity of every citizen to use digital infrastructure.

-Getting services and governance on demand

-The introduction of digital payments, which make it possible to bring the unbanked on-board.

Generally, the Indian economy is benefiting from digitization. India is also one of the leading counties when it comes to the evolution of payment systems. Enablers such as Aadhaar, Jan Dhan, Mobile penetration and demonetization have made it easier for many people to adopt digital payment systems. Due to mass adoption of biometric and digital systems, India is expected to use

plastic payment systems on a large scale and have one of the most sophisticated financial systems in the world.

India is aspiring to be a leader in different global technology platforms. This is strengthened by the country's expanding technology capabilities, vibrant private sector, rich diplomatic history and entrepreneurial potential. In order for India to maintain its leadership in information technology, it is vital for digital technologies to be used to improve public services, deliver financial inclusion and develop efficient trade mechanisms.

MAJOR NEW DIGITAL PAYMENT MODES IN INDIA

ONLINE OR MOBILE WALLETS

- Online wallets are used via the internet and through smartphone applications.
- Money can be stored on the app via recharge by debit or credit cards or netbanking.
- Consumer wallet limit is US$ 311 (Rs 20,000) per month or US$1,554 (Rs 100,000) per month after KYC. The merchant wallet limit is US$777 (Rs 50,000) per month after self-declaration, and US$1,554 (Rs 100,000) after KYC verification.
- Facilitates P2P fund transfers.

PREPAID CREDIT CARDS

- Pre-loaded to individual's bank account. It is similar to a gift card; customers can make purchases using funds available on the card – and not on borrowed credit from the bank.
- Can be recharged like a mobile phone recharge, up to a prescribed limit.

DEBIT/RUPAY CARDS

- These are linked to an individual's bank account.
- Can be used at shops, ATMs, online wallets, micro-ATMs, and for e-commerce purchases.
- Debit cards have overtaken credit cards in India. In December 2015, there were more than 630 million debit cards as compared to 22.75 million credit cards.

AEPS

- The Aadhaar Enabled Payment System uses the 12-digit unique Aadhaar identification number to allow bank-to-bank transactions at PoS.
- AEPS services include balance enquiry, cash withdrawal, cash deposit, and Aadhaar to Aadhaar fund transfers.

USSD

- Stands for Unstructured Supplementary Service Data based mobile banking.
- Linked to merchant's bank account and used via mobile phone on GSM network for payments up to US$77.68 (Rs 5,000) per day per customer.

UPI

- The United Payments Interface (UPI) envisages to be a system that powers multiple bank accounts onto a single mobile application platform (of any participating bank).
- Merges multiple banking features, ensures seamless fund routing, and merchant payments.
- Facilitates P2P fund transfers.

INDIA'S DIGITAL PAYMENTS FUTURE

Besides private actors like Paytm, Mobikwik, and FreeCharge, the Indian government has been aggressively pushing

several digital payment applications, including the Aadhaar Payment app, the UPI app, and the Bharat Interface for Money (BHIM) app developed by the National Payments Corporation of India (NPCI).

India has witnessed an exponential growth in its digital economy over the last two decades. The digital economy is the result of a transformative process brought by information and communication technology (ICT), which has made technologies cheaper, more powerful, and standardized, improving business processes and bolstering innovation across all sectors of the economy. The exponential growth in ICT from the previous decade has resulted in greater connectivity, linkages and networks.

According to media reports, the mobile connections in India surpassed the traditional landline connections in 2004. Further, India is one of the largest consumer of mobile data. Prime Minister Narendra Modi's push for a digital India, Start-up India programme and demonetization has further propelled the use of digital transactions in India.

The challenges on taxation front are also unique as digital economy has changed the traditional basis of taxing profits and income due to mobility, reliance on data, network effects, spread of multisided business models, etc. In absence of effective tax rules for digital transactions, the tax authorities tend to force-fit the existing tax rules, designed for a non-digital world, thus resulting in asymmetry, double tax burden and sometimes excessive profit allocation. There is a growing apprehension about tax planning by multinational enterprises (MNEs) that make use of gaps in the different tax systems to artificially reduce taxable income or shift profits to low-tax jurisdictions in which little or no economic activity is performed, resulting in payment of minimal tax on their global profits.

India started its journey of taxing digital transactions by introduction of EL since June 2016, on online advertisements. The levy was introduced as part of Finance Act and is the first instance of a digital-specific tax legislation in the Indian law. The levy is applicable for consideration received or receivable by non-residents providing the following business-to-business services to a resident in India or a non-resident having permanent establishment in India:

•Online advertisement.

•Any provision of digital advertising space.

•And facility or service for online advertisement.

•Any other service which may be notified later.

Currently a levy of 6% is charged on the above specified services, with corresponding exemption to the income in the hands of the recipient under the Income Tax Act, 1961("the Act"). The EL is not part of the Act and since tax treaties generally provide credit for taxes paid under the Act, this may result in a situation of non-availability of tax credit on the transactions subject to EL. However, there is also a contrary view on this aspect that credit could be claimed for such tax paid in India. The concept of significant economic presence (SEP) was introduced from April 2018 in Indian domestic law, triggering a possible tax exposure for non-residents although situated outside India but having a digital presence above a certain threshold that is yet-to-be-specified. The SEP may apply to a non-resident for carrying out any transaction in respect of any goods, services or property in India including download of data or software. This definition as specified currently is very wide and has the possibility of covering a wide variety of transactions under its ambit. With revenue authorities struggling to augment their revenue

collections, tax on digital economy is bound to gain more attention in near future.

CONCLUSION

The journey towards a digitally – connected India began in the early 90s and 2000s with the introduction of a range of e – governance programmes. However, its impact was limited. With a clear vision, the present government is pushing ahead the Digital India initiative to transform the country into a digitally empowered society and a knowledge economy. With the launch of this initiative, the government aims to reach out to citizens in the remotest of locations and make them a part of India's growth story Digital India provides the much-needed thrust to the nine pillars of growth areas, namely Broadband Highways, Universal Access to Mobile Connectivity and Public Internet Access Programme, among others.

A digitally connected India can help in improving social and economic condition of people through development of non-agricultural economic activities apart from providing access to education, health and financial services. However, it is important to note that ICT alone cannot directly lead to overall development of the nation. The overall growth and development can be realized through supporting and enhancing elements such as literacy, basic infrastructure, overall business environment, regulatory environment, etc.

In order to sustain in the business world, it is the need of hour to upgrade existing Indian financial system to latest digital financial system. But this transition may not be accomplished merely forcing demonetization kind of moves only. It requires a series of reforms and policies to lift up the Indian economy through step by step process and making it to reach in the elite class of digital economies. Firstly it requires consistent electricity, good coverage of internet across the country, digital literacy and privacy

among customers with easy to use application for conducting digital transactions. Later on, the move like shifting all the banking transactions to digital may become possible. Government and Banking institutions have to work together to uplift the rural and technology challenged people to understand and use the digital transactions.

REFERENCES

1. *https://www.researchgate.com*
2. *https://www.cisco.com*
3. *https://www.marsh.com*
4. *https://www.brookings.edu*
5. *http://www.nishithdesai.com*
6. *https://en.wikipedia.org*
7. *https://brainly.in*
8. *https://en.wikipedia.org*
9. *https://en.wikipedia.org*
10. *https://www.lessonsatstartup.com*
11. *https://www.gbim.com*
12. *https://www.hindustantimes.com*
13. *https://www.insightsonindia.com*
14. *http://www.srmuniv.ac.in*
15. *https://www.elkjournals.com*
16. *https://www.india-briefing.com*
17. *https://www.livemint.com/*

EFFECT OF DIGITALIZATION IN RURAL AREAS

***Dr. S. MUTHULAKSHMI**
Assistant Professor,
Department of Commerce,
VHNSN College (Autonomous),Virudhunagar.

ABSTRACT

Digitalization offers both opportunities and challenges. As digital information can be accessed everywhere, the choice of location for industries, businesses and workers becomes more flexible. However, there are concerns that economic development will concentrate in certain areas, mainly in metropolitan cities as the better developed digital infrastructure and already existing innovation hubs can be found there. On top, ongoing megatrends such as the urbanisation and the rise of the creative class that mainly settles in cities make it even more likely that only certain areas profit from the digitalisation. In this sense, digitalisation could lead to further social and regional disparities and could possibly deepen the existing divide between urban and rural areas.

Keywords: *Digitalization, Rural*

INTRODUCTION

The potential for rural areas to benefit from telecommunications technology is a persistent question. This paper examines data for the USA concerning the 'digital divide' and access of residences and businesses, which tend to suggest that all is (or will soon be) well. The paper also presents data on aspects of digital infrastructure in rural America, including points of presence and digital telephone switches, which suggest that there are major shortcomings in most rural communities. Demand aggregation is a

possible solution, but more serious pitfalls are those related to shortages of human capital. These might be resolved in some rural places, where inmigration and return migration bring needed cerebral inputs to rural areas. A final set of improvements concerns how businesses use the Internet and e-commerce. In the end, telecommunications is not a 'quick fix' solution for rural development, and the desired improvements will be limited to a fraction of rural places.

OBJECTIVES

i. To understand about Effect of Digitalization In Rural Areas
ii. To know about Effect of Digitalization In Rural Areas
iii. To known Steps Towards Digitalization of Rural India

METHODOLOGY

Details and Information for the purpose of the study was collected from the secondary sources viz., websites, published articles, thesis and dissertation, journals, magazines etc…..

EFFECT OF DIGITALIZATION IN RURAL AREAS

It is a well-known fact that digital India is the outcome of many innovations and technological advancements. These transform the lives of people in many ways and will empower the society in a better manner. The 'Digital India' programme, an initiative of honourable Prime Minister Mr. Narendra Modi, will emerge new progressions in every sector and generates innovative endeavours for geNext. The motive behind the concept is to build participative, transparent and responsive system. The Digital India drive is a dream project of the Indian Government to remodel India into a knowledgeable economy and digitally empowered society, with good governance for citizens by bringing synchronization and co-ordination in public accountability, digitally connecting and delivering the government programs and services to mobilize the capability of information technology across government departments. Today, every nation wants to be fully digitalized and

this programme strives to provide equal benefit to the user and service provider. Hence, an attempt has been made in this paper to understand Digital India-as a campaign where technologies and connectivity will come together to make an impact on all aspects of governance and improve the quality of life of citizens. Digital India is a campaign launched by the Government of India to ensure that Government services are made available to citizens electronically by improved online infrastructure and by increasing Internet connectivity or by making the country digitally empowered in the field of technology. It were launched on 1 July 2015 by Prime Minister Narendra Modi. The initiative includes plans to connect rural areas with high-speed internet networks. Digital India consists of three core components. These include: The creation of digital infrastructure, Delivery of services digitally and Digital literacy Digital India is a large umbrella national programme that focuses at providing universal digital literacy and universal accessibility of all digital resources for citizens. The vision is centered on three key areas: creation of digital infrastructure, delivery of governance and services on demand, and digital empowerment of citizens. Digital India program will focus on restructuring several existing schemes to bring in a transformational impact. The vision of the programme aims to transform India into a digitally-empowered society and knowledge economy through infrastructural reforms such as high-speed internet in all gram panchayats, lifelong digital identification for citizens, mobile banking for all, easy access to Common Service Centres (CSC), shareable private spaces on an easily accessible public Cloud and cyber-security. The programme will also ensure that all government services and information are available anywhere, anytime, on any device that is easy-to-use, seamless, highly-available and secured. It is one of the step by the government to motivate and connect Indian Economy to a knowledge savvy world .The Programme symbolizes the Government of India‟s vision for connecting and empowering 125 crore citizens; creating unprecedented levels of transparency and accountability in

governance; and leveraging technology for quality education, health care, farming, financial inclusion and empowering citizens. Under the „Digital India" Programme, technology will play a central role to achieve easy, effective and economical governance.

In presence of the fast developing and evolving communication technologies, appreciable advances have been registered with all the related integrated services on global scale and particularly in the developed world. Most of the developing and transitional countries still face and has to overcome the problem of digitalization of the telephone communication in general and solving of the rural infra-structural and digitalization problems in particular. For transitional countries like Armenia the general problem is one of overall upgrading of the existing infrastructure and changing of the exchanges from analogue to digital ones where necessary. The digitalization of the cities and backbone structure of telecommunication in Armenia is almost ready or on the verge of completion. Same cannot be said about the rural areas of the country. Doubtless, the enhanced telecommunication services in the rural areas not only will improve the telecommunication in the villages, but also will help the stimulation of the local economies, businesses, increase the demand for such sevices, and augment the number of subscribers. Taking into account the financial resources, cost effectiveness, existing demand, priority factors, urgency and the requirement to provide optimal telecommunication solutions, ArmenTel undertook serious research and planning works to reconcile and meet these criterias and at the same time secure rural population of Armenia with modern and financially feasible means of communication. Several options, among which full digitalization of the rural areas using remote subscriber units, overlaid digital network through new regional center digital exchanges using existing access network and transmission means, installation of GSM card-phones, and fixed-wireless technology have been studied, considered and even for some options projects were prepared. All of the options have their merits and disadvantages at the same time. In

the case of Armenia the priority was given to the urgency of the matter. To meet and satisfy the immediate needs of the rural population in Armenia in the most restricted period of time, the "installation of GSM card-phones" option fitted best and opted for. Presently, the actual implementation of the "installation of GSM card-phones" is underway in earnest. Installing GSM cardphones the provision of telephone services become generally available (allowing incoming and outgoing calls) to the rural population at tarriffs equivalent to the tarriffs offered to population living in areas covered by conventional wireline service. But this option may not meet full telecommunication demand. In this article, we would like to present and discuss the case study of "overlaid digital network through new regional center digital exchanges using existing access network and transmission means" option.This option, though requires considerable financial resources and may be in excess of the existing demand. Adoption of this option provides and can serve for broadband services.

India, which was considered as primarily an agricultural economy, is developing at a very fast rate. It has now become a knowledge economy. It has got the world's largest pool of scientists, doctors, engineers and experts in every field. Till few years back India's metros were developed which had all the latest technologies. The evolution of information and communication technologies (ICTs) rural arevolution in India has created a technological divide between the urban areas and rural areas many of India's companies and well-educated enjoy the benefits of ICTs, these technologies were not accessible or affordable for the majority of the population. The divide is exacerbated by the deeply ingrained disparities of gender and social class, which determine who can or cannot use technology. Despite recent Liberalization, Privatization and Globalization since the 1990, accessibility is also hindered by language barriers, and a lack of suitable content and applications in local languages. But now that is not the case. India's rural areas are also developing at a very fast rate. According to a marketing

research firm report by Francis Kanoi "Contrary to the perception that Direct-to-Home (DTH) television technology is an urban or a metro phenomenon, 70 per cent of its DTH subscribers reside in rural areas and towns with a population under a million. And metros like Delhi or Mumbai contribute only 2-3 per cent to the overall DTH subscriber base of 13.2 million" In rural areas the market leaders are Dish TV and DD's direct plus DTH while in metros Tata Sky, Dish TV and Sun Direct DTH services are the preferred brands. The states of Maharashtra, Goa, Punjab, Uttar Pradesh, and Rajasthan are the leaders in DTH subscription, contributing over 6.4 million DTH connections or 48 per cent to the overall DTH subscriber base. DTH has become popular in rural areas because it always gives the consumers a variety to choose from and pick accordingly. In rural areas there are almost 10-12 hours of power cuts. it will be easier for the people to access their favourite programmes or daily soaps through DTH. All they need is a small generator and their digital TV will work while cable will not.

STEPS TOWARDS DIGITALIZATION OF RURAL INDIA

Cisco and BT have established Life lines India. It is a telephone-based help line that provides advice and guidance to rural farming communities. Majority of the rural population is illiterate and therefore a voice based programe is highly useful to the farmers. Large number of farmers call on their helpline for problem relating to cattle or pest infestation to their crop etc and are getting benfitted by it. There is one instance of a farmer whose cow was giving very less and poor quality of milk. He called on these help lines and followed their instructions meticulously and with few days found improvement in the quality and quantity of milk given by the cow.

The program, which launched in November 2006, can point to many solid achievements:

– Participating farmers have increased profits from 25 to 150 percent due to a consistent improvement in crop quality and productivity.

– The FAQ database now contains more than 125,000 entries.

– The program has expanded to encompass more than 100,000 farmers in nearly 5,000 villages.

– Call volume has risen from 1,100 per month at launch to more than 200 calls daily.

– The program has expanded beyond agriculture and now supports teachers with advice on curriculum, pedagogy, policy and administration.

In Dhar district of Madhya Pradesh government has launched Gyandoot (messanger of knowledge) Project. In this project a reliable intranet connects villages throughout the district. Access is through numerous cyber-kiosks run by local entrepreneurs. A wide range of services is offered: mandi [market] information, landholder records, Hindi email, forms and news on employment, matrimonials, education and health. This project won the prestigious Stockholm Challenge Award for the year 2000. M.S. Swaminathan Research Foundation of Chennai and International Development Research Centre [IDRC] of Canada have initiated a project similar to Gyandoot project named, The Information Village Research Project (IVRP). in Chennai. About 8 villages around Pondicherry form the test bed for the project. For the villages covered under the project, Villianur, Pillayarkuppam, Kizhur, Embalam, Veerampattinam, Thirukanchipet, Pooranamkuppam and Kalitheerthalkuppam, information technology is no longer a dream of the 21st century It has redefined their lives. It provides information on fisheries, agriculture, buses, healthcare, jobs etc. online. Best of all the project uses 60% of solar energy and is totally wireless.

ECONOMIC IMPACT OF DIGITALIZATION OF RURAL INDIA

The economic impact of digitalization of rural India is far and wide. To quote in the words of Kane J. Shore a Journalist “What

a difference five years can make. In that time, a project to bring the Information Age to villagers in southern India has… given 50 000 "information shop" users in a dozen"information shop" users in a dozen communities high-speed wireless telephone and Internet access. It has also helped improve more traditional Indian communication methods, such as public loudspeaker networks and community newspapers. Increase in Employment Opportunities: First and foremost benefit of digitalization is increase in employment opportunities in rural areas. Large number of small entrepreneurs have got employment in provision of Internet kiosks in rural areas –Improvement in standard of Living: The second benefit is the improvement in standard of living of the people by improving their income. Large numbers of people are getting benefitted by these facilities. They are using internet services and other facilities provided by various schemes like lifelines India and are getting awareness regarding various plant diseases, new methods of farming etc. They are also getting information on various diseases of farm animals and methods by which they can remain healthy and their output also increases.

–Reduction in Risk and Uncertainty: Rural community is making full use of available techniques and is reducing risk and uncertainty by getting market information online. Fishermen are checking weather conditions before venturing into the sea. They are also carrying mobile phones with them so that in case of any emergencies they can contact their relatives or authorities and they can get help.

–Saved life during Tsunami: "Residents of the village of Nallavadu, Pondicherry on the east coast of India escaped December's deadly tsunami after some quick-thinking, and forewarned, citizens managed to broadcast an alert of the oncoming waves. After receiving a phone call from a relative in Singapore who had heard of the earthquake and resulting tsunami headed for India, villagers broke into the

community centre set up by the IDRC-supported MS Swaminathan Research Foundation (MSSRF) where a public address system used routinely to announce sea conditions to the fishermen was housed. The warning was successful and the entire village's population of more than 3,500 evacuated the area in time " (Digital Review of Asia Pacific) This is only one instance in which ICT could save lives of large number of people.

–Increasing e-literacy in rural areas: Large number of rural youth is getting training in using computers, MS Office and Internet. Internet Kiosks are conducting educational and training programs for rural youth. Under various programs large number of rural youth is being trained through village knowledge centers.

–Increasing awareness about Spoken English: Rural people have become aware of importance of spoken English, since English is the main language required for Internet.

IMPACT OF DIGITISATION: THE NEW RURAL REALITY

Rural India is expected to leapfrog urban India and constitute nearly half of all Indian internet users by 2020. Digitisation can facilitate some of the key needs of rural India including e-governance services, banking and financial services, educational and healthcare services, mobile/DTH recharge, e-ticketing services, online shopping, etc. Over 10 years ago, the government, through its flagship National e-Governance Plan, envisaged to empower rural citizens by making available various government services to them via electronic media and created access points, i.e. common service centres run by village-level entrepreneurs (VLEs) at the village and gram panchayat level.

These 'brick and click' centres act as one-stop digital outlets providing both government and business services to rural citizens. Keeping in mind the evolving needs of rural citizens, the service portfolio available at these centres has gradually expanded

beyond government services to banking, financial services, mobile top-ups, electricity payments, railway bookings, e-learning and e-commerce. Financial inclusion is an important priority of the government. Only 38% of the 117,200 branches of scheduled commercial banks are working in rural areas, and a meagre 40% of the households have bank accounts. Thus, India is home to 19% of the world's unbanked population.

This gap at the last-mile is being filled by banks through a combination of finance and technology enabled by business correspondent agents at these kendras where customers can open accounts and do normal banking transactions. To further enable mass transactions, AePS (Aadhaar-enabled Payment System) has been launched wherein rural citizens can perform simple banking transactions like deposit and withdrawal through their biometric ID and Aadhaar number at any of the AePS kendras. Adoption of financial services like life, motor and health insurance by rural consumers is a challenge, considering their difficulty in understanding the need and importance of such an insurance cover; it is also time-consuming.

But with technology and processes becoming easier online, common service centres are playing an important role in furthering the adoption of financial services. Digital payment is another basic need—for mobile phones, DTH or electricity bills. With options being available at their doorstep through common service centres, villagers can do top-ups or pay bills at the click of a button. Besides, with growing awareness of e-commerce, rural consumers are seeking such online shopping options that are currently available only to their urban counterparts.

E-commerce portals with a focused approach to cater to the needs of rural population are gaining popularity. This is only the beginning of a new wave that is impacting the bottom of the pyramid. While on one hand demonetisation paved the path for quicker adoption of digital payments, on the other there are several start-ups with novel solutions in digital learning and tele-medicine

knocking on the doors of the rural consumer. This rural awakening is also creating fresh opportunities for rural entrepreneurship, wherein the rural youth are seen providing digital services to their brethren, ensuring quicker adoption of such services.

RURAL INDIA IS THE FUTURE OF DIGITAL INDIA

The Digital India agenda has created opportunities for many ministries and departments of the government to come together and develop integrated solutions. But many technology providers, and indeed even some policy planners, have begun to consider Digital India opportunity as synonymous to the development of smart cities and the "Internet of Everything".

In reality, the benefits of a truly Digital India for rural areas are even more significant than the more trendy applications that urban planners can envisage. This point was brought home to some of us at NASSCOM Foundation in a conversation with secretary (panchayat) and her team in Delhi a few weeks ago. During a discussion on the National Digital Literacy Mission (NDLM) and the excitement at making over two hundred million citizens and families access and disseminate information for building better livelihoods, it emerged that the vehicles that could drive the digital literacy agenda could be used to provide various other services to the rural population.

At the behest of the secretary and her team a visit to Hiwre Bazar, a village of just over a thousand people in the Ahmednagar district of Maharashtra, served as an eye-opener to our team. The story of this village, which has moved from a drought prone state of penury twenty years ago to a stage where hardly three of its inhabitants qualify for below poverty line (BPL) status, is a story of leadership and commitment helped to some extent by technology.

The very erudite Popatrao Pawar who abandoned a flourishing cricket career to take on the reins of the village and invested in education and regular gram sabhas to rid the village of the twin scourges of alcoholism and illiteracy is fond of talking about the people movement inspired by him that led to this

transformation. The e-Panchayat software installed in the village that helps keep track of all critical parameters of village health may not be core to the success of this remarkable village, but certainly is a catalyst for its ongoing progress.

The possibilities to deploy the next level of technology in Hiwre Bazar, the adjoining Ralegam Sidhi made famous by its lead occupant Anna Hazare and six hundred thousand villages with two hundred and fifty thousand panchayats that dot the country's rural landscape are mind-boggling. The very well run primary school that has been the fountainhead of change in the Hiwre Bazar community could become the hub for digital literacy and digitally enabled skills – for agriculture, basic healthcare and repair and maintenance training. It could also train the elected members of the panchayat in the excellent software applications already developed and deployed by the ministry and enable self-help groups to flourish with access to information and sharing of knowledge enabled at their fingertips.

In some of the early centres set up through corporate funding as part of the NASSCOM Foundation's role in the one million people first phase of NDLM, the training and certification of urban poor in cities like Pune and Hyderabad have demonstrated the power of the digital literacy platform. An enabled citizenry will put the power of e-government applications firmly in the hands of the people and it will need joint strategizing and implementation by government, associations like NASSCOM, CII, FICCI and the civil societies to ensure that training and applications are put in their hands to make the digital India dream a reality.

Beyond individual empowerment, an experiment we are starting in one of the manufacturing states is also worth mentioning here. Hosted at the state's data centre, the project aims at creating a state manufacturing applications cloud. The project that will ride on the state wide area network will enable thousands of SMEs to access world class applications to automate their procurement, production and dispatch operations in a pay-per-use basis.

Software-as-a-service deployment and the engagement of all eco-system players through the cloud platform will make transactions between companies, as well as government transparent and friction free. This will substantially improve productivity and help reduce cost. This is an example of Digital India creating an inclusive culture rather than just catering to the urban elite.

IMPORTANCE OF THE INTERNET IN RURAL DEVELOPMENT

Today's generation is all about the digital progress and technological advancement. The immeasurable heights that technology has attained are a marker of growth and development. It is a benefaction for the country and apparently, the whole world. No aspect of our lives is devoid of this progressive innovation. Communication has become better than ever. Businesses are blooming, education is upgrading, jobs are being invented, and a lot more!

Business growth

With the availability of internet service provider in rural areas, business will see tremendous growth. The connectivity will enhance and thus, many start-ups and small-scale businesses can reach potential customers directly. The pre-existing businesses will be given a boost as they understand trends and demands, while new endeavors could be made possible.

Regional development

Budding technology offers a sense of recognition to a place. It becomes a society of aware citizens having an understanding of their rights and responsibilities. The banking system, transportation, education and almost every sector is impacted with this progression as the services become better. And this way, the entire region flourishes as a whole.

Reduces dislocation and migration

The cases of dislocation and migration come mostly from rural localities. If the rural areas are developed and offered employment via Internet connectivity, global communications and increased income, then there would be lesser cases of migration and dislocation by natives.

Better communication means

This is the most obvious and significant aid that internet availability offers to any place. The means of communication can enhance and bring rural areas closer to the world which is a significant step towards development.

Digital mastery and banking

The motive of government to introduce digitization in rural areas was to empower individuals. The mastery over digital advancement is a medium through which e-banking system is encouraged. It is a great initiative for rural development as the population has access to transparency with regards to loans and liabilities.

Literacy rate hike

The online teaching facility is empowering. The Internet brings with it the option of spreading education in a widespread way without the constraints of distance. In rural areas where schools can be at quite a distance, thus, the Internet can help increase literacy rate of rural areas.

Agricultural assistance

An internet service offers farmers an opportunity to gain an intricate understanding of their own business and also the ways in which they can improve their yield. It is a prominent initiative to reduce exploitation and offer guidance in terms of market prices and interaction with direct consumers.

Community Development

As a community, the exposure to awareness and rationale can help individuals to make better decisions. It can be an excellent medium to annihilate myths associated with girls, evil eye, etc. The welfare level of internet service also becomes very high.

IMPACT OF DIGITAL INDIA ON RURAL INDIAN STUDENTS

Digital India can only succeed in impacting education if it's technology can be integrated into our vast and complex school/college system. Investment also needs to be put into the tools that are used for student learning like digitized textbooks, animations and videos.

We need to build learning tools to address the diversity of languages. Such content could either be developed locally or high quality global content could be localized. Further, we also face a huge challenge of teachers lacking adequate training. While those in government schools have access to professional development and academic support, only 20-30 of them actually received in-service training. Teachers in private schools, who now educate 43% of our students also lack access to training.

Technology allows for reinventing models of teacher education by creating competency-linked training programmes, and enables teachers to connect with peers, and receive coaching from experts remotely. Government teachers in Maharashtra, Gujarat, Uttarakhand are using Whats App groups to exchange knowledge and ideas with each other. The Karnataka Open Educational Resources platform is enabling teachers to create digital content.

Digital India is a huge opportunity for us as the government pushes for the use of technology. Let us not duplicate the mistakes of the past by assuming that providing hardware and connectivity to schools will result in the uptake of technology. Instead, let us approach the opportunity with a vision and commitment to adopting

a comprehensive approach to using technology to improve the education of our children.

IMPORTANCE OF DIGITAL LITERACY IN RURAL INDIA

Fastest growing countries like in India digital literacy plays major role . In India around 70% of people lives in rural areas. Earlier we don't used to have access of electricity and basic education . Nowadays govt of India has improved social position of people . Even govt of India improved their social position but employment is major issue for them.

We can achieve employment by injecting digital era into their life. **Digital literacy has direct impact on people's per capita income.** Consider importance of digital literacy in education which is help students to learn things around the world besides book knowledge . They can learn different kind of online courses which improves theire employability criteria.

Digital literacy will improve social and financial status of people . We can see womens in remote areas are selling their handcraft products in e-commerce platform like Amazon . People can learn their interesting factors like organic farming , health precautions .

Govtof India has initiated E-PACHAYAT mission to improve quality of governance in rural areas .

DIGITAL: TRANSFORMING RURAL LIFE IN INDIA

The digital penetration in the Indian hinterland is growing silently but rapidly. Several initiatives taken by the government, NGOS, private social groups are now using technology for efficient delivery of a variety of services that is showing remarkable results.

India’s population now exceeds 1.21 billion with 69% of the population located in rural areas. Internet penetration is increasing with Mobile playing the major catalyst. Studies conducted by IAMAI reflect some interesting patterns. 90% of those accessing the internet were using it for entertainment, 80% were

using it for communications, 67% for online services, 65% for e-commerce and 60% for social networking. The number of Internet users in rural India is estimated to cross 85 million by June 2014 making India the world's second largest market for Internet users. All these put together is now changing attitudes, awareness and lifestyles in rural India. A decade ago, the awareness, information and knowledge gap between the rural youth and his urban counterpart was significant. This has now rapidly narrowed and the gap is closing.

In any developing economy, the success of any social development initiative depends on not only the government's involvement but active participation from both the private sector, as well as, people themselves. India is continuing to demonstrate several success stories that can lead to other initiatives by various interest groups. Bottom line: people participation.

The use of Digital technology to better lives is now beginning to unfold in the Indian hinterland. Some of the interesting experiences come from the Rural Health Connect initiative of **NewDigm Healthcare Technologies**. They have taken the initiative to utilize the large pool of Village Health Workers (VHW) that provides a wide variety of health care support to the last mile areas of rural India. Creating a mobile platform to collect, streamline, analyze, offer medical advice and the next course of possible action to the VHW. The results are well documented. In a field trial conducted with the National Rural Health Mission, Tamil Nadu saw 95% pregnancies registered and monitored, 20% reduction in outpatient costs including drugs, 75% VHWs registering an increase in diagnostic efficiency and ease of operation. In the next three years, the target market penetration is going to significantly increase with its impact on both healthcare and rural incomes.

Google has launched an initiative to introduce women to the internet especially those in the rural areas. They have launched a website '**Helping Women Get Online'.** They have partnered with leading companies like Hindustan Levers, Axis Bank, Intel, Johnson

& Johnson, Shaadi.com, Babyoye & iDiva. The website offers a step-by-step guide to computer basics, internet skills, chat & email and watching videos online. Each topic has different topics ranging from how to start and shut down your computer, how to create an email account. In addition, the site also offers information on a variety of topics such as cooking recipes, childcare, financial, healthcare, maternity, relationship and style & beauty. They also offer a Toll-free helpline.

Another initiative from **Human Welfare Association** called **Mahila Shakti**. HWA works with underserved, disadvantaged and minority communities in the Varanasi area through education, literacy and livelihood by using personal contact programs, group meetings, SMS, education hubs etc. Their other well recognized projects are PES Project, Global Fund for Children, e-NGO National Program and Rajiv Gandhi Foundation amongst others.

Launched in June 2000, **ITC's e-choupal** initiative has emerged as the largest internet based intervention in rural India, reaching out to 4 million farmers in over 40,000 villages through 6,500 internet kiosks. The initiative leverages technology through internet kiosks managed by farmers themselves and providing all relevant information to the farming community covering weather, market prices, information on best farming practices and risk management, while providing all information to facilitate sale and optimizing farmer profitability. A fact that the rural farming community has wholeheartedly accepted and adopted best practices using technology has shown its impact and success on rising agricultural production and income.

Those of us in urban areas often desire to reach out and do something that can make a difference to someone's life but never get around to taking that first step. It just may be a great idea to take inspiration from the above and see what you could offer based on your time, talent and skill set. Technology can help you reach out to

a larger number more efficiently. Remember we all have something positive to offer we just need the right platform.

CONCLUSION

Digitalization of rural India gives a very rosy picture. But it is not so. There are large number of problems and challenges ahead. Discussion of all these is beyond the scope of this paper. But it can be said that Indian farmer is no longer traditional and illiterate. It is found that whenever he has got the opportunity he has made full use of available technology and has benefitted with it.

REFERENCES

1. *http://www.pinterview.in/blog/2015/10/impact-of-digital-india-on-rural-indian-students/*
2. *http://parisinnovationreview.com/articles-en/the-impact-of-internet-in-rural-india*
3. *https://www.researchgate.net/publication/324248393_An_Overview_of_Digitalization_of_Rural_India_and_Its_Impact_on_the_Rural_EconomyAn_Overview_of_Digitalization_of_Rural_India_and_Its_Impact_on_the_Rural_Economy*
4. *http://iec.edu.in/blog/digital-india-opportunities-challenges/*
5. *https://sites.google.com/site/telecomnewsinindia/importance-of-internet-in-development*
6. *https://atenekom.eu/wp-content/uploads/2017/11/06_GW17_CORA-project_KhodabakhshP.pdf*
7. *https://www.mapsofindia.com/my-india/india/digital-transforming-rural-life-in-india*
8. *https://www.quora.com/What-is-the-importance-of-digital-literacy-in-rural-India*
9. *https://www.researchgate.net/publication/324248393_An_Overview_of_Digitalization_of_Rural_India_and_Its_Impact_on_the_Rural_EconomyAn_Overview_of_Digitalization_of_Rural_India_and_Its_Impact_on_the_Rural_Economy*

10. *https://www.financialexpress.com/opinion/impact-of-digitisation-the-new-rural-reality/1286816/*
11. *https://www.compact.nl/en/articles/the-impact-of-digitalization-and-globalization-on-political-risk/*
12. *https://iasscore.in/national-issues/digital-india-programme-importance-and-impact*
13. *https://www.eesc.europa.eu/resources/docs/qe-02-17-763-en-n.pdf*
14. *https://www.itu.int/ITU-D/tech/NGN/Manual/ManualAddReferences/A_3_2_8.pdf*
15. *http://www.ijaerd.com/papers/special_papers/ISNCE08.pdf*

EFFECT OF DIGITALIZATION ON IMPORT AND EXPORT

***J. SHYLA**
Head, Dept. of Commerce,
Malankara Catholic College, Mariagiri

ABSTRACT

Digital technology is shaping the future of global trade and investment. One aspect of the adoption of digital technology by global exporters and importers is the purchase and sale of goods and services online, which is part of what is broadly understood as "e-commerce". The use of automated data exchange systems, cloud computing, big data and open source operating systems can help businesses run international supply chain management more efficiently. However, the use of digital technology in trade activities can, in fact, go beyond online buying/selling; in this chapter, the term "digital trade" refers to the use of digital technologies to facilitate businesses without limiting it to just online sales or purchases.

Keywords: *E-Commerce, Trade*

INTRODUCTION

The impact of digital technology on global trade has attracted public attention worldwide with the discussions mainly focused on online sales. The rising importance of digital trade was already noted by international organizations in the late 1990s. For example, in 1999, UNCTAD stated that "electronic commerce has the potential to be a major engine for trade and development on the global scale" (UNCTAD, 1999, p. 1). WTO work in the same period stated that "the value of electronic commerce has catapulted from virtually zero to a predicted $300 billion in the 10 years up to the turn of the century" (WTO, 1998, p. 1). A decade later, OECD

(2012) indicated that more than 95% of all companies in OECD countries use Internet in doing their business. According to the most recent estimates made by UNCTAD (2016a), "e-commerce includes both business-to-business (B2B) and business-to-consumer (B2C), valued respectively at around $19.9 trillion and $2.2 trillion each...This trade is mostly domestic, but is becoming more and more international."

OBJECTIVES

1. To Understand about effect of digitalization on import and export
2. To Know about effect of digitalization on import and export
3. To Study about the use of DGFT digital signature certificate
4. To Know about Foreign trade and digital signature certificates
5. To Study about the impact of digital technology global trade

METHODLOGY

Detail and information for the propose of the study was collected from the secondary sources viz, web sides, publish, article, thesis and desecration, journal, magazines etc.

EFFECT OF DIGITALIZATION ON IMPORT AND EXPORT

Underlying the rapid growth in digital trade is the revolution in computer and software technology, telecommunications technology and the expansion of Internet access. Since the mid-2000s, Internet access has greatly increased globally. According to the United States International Trade Commission (2013), while only 5.9% of the world's population had Internet access in 2000, the number had grown to an estimated 34.3% by 2012. Internet access has expanded greatly, both in developed and developing economies. For example, the Internet penetration rate, which is measured by the share of Internet users in total population, more than doubled from 37.3% in Japan and 33.8% in the United States of America to 79.5% and 78.1%, respectively, during 2000 to 2012 (USITC, 2013). However, it is in emerging

economies, such as Brazil, China and India, where Internet penetration has rocketed from 2.9%, 1.8%, 0.5%, respectively, to 45.6%, 40.1% and 11.4% (USITC, 2013). According to the International Telecommunications Union (2013), 2.3 billion people have access to the Internet and this figure is expected to grow to 5 billion by 2020. For Asia and the Pacific, the growth of ICT connectivity over the past decade has been leading the world average. A report prepared by ESCAP (2016a), reveals that more than 52.3% of the global fixed broadband subscribers are in the Asia-Pacific region; however, this impressive number is mainly driven by China and a few countries in East and North-East Asia (ESCAP, 2016).1 Online connectivity has been greatly improved as a result of the increase in mobile telephones and social media activity, and the deployment of national and international fibre-optic networks (UNCTAD, 2015). As Internet accessibility expands, trade transactions are moving from physical interactions between sellers and buyers, to cyberspace – with the marketplace being based on online activities without requiring direct interactions. For example, the virtual marketplace has proliferated in forms of websites and through the use of social media such as eBay and Craigslist. In this process, the widespread lowering cost of mobile phones and tablets has been an important means for digital trade, especially in developing countries (UNCTAD, 2015). According to OECD (2012), the number of mobile phone subscriptions worldwide has more than doubled since 2005 and tripled in non-OECD countries. According to Ahmed and Andolas (2015, p.1), mobile devices "will account for four out of five broadband connections by 2016". The latest statistics, released in June 2016 by ITU, indicate that the global mobile-broadband penetration rate was 49.4% while the penetration rate of fixed broadband was only 11.9%. The expansion of mobile broadband, in particular, is reducing the digital gap for developing economies whose access to fixed-broadband (8.2%) is much more limited than access to mobile broadband (40.9%). Therefore, it is not surprising that a survey by Fedrikkson (2013)

found that 90% of online consumers in Latin America use smartphones to do online shopping. In China, "almost half of all online shopping is carried out on smartphones" (Wilson, 2016). Similarly, the survey by USITC (2013, p. 12) showed that "portability and wireless broadband, particularly when accessed via tablets, were key drivers of the increase in United States demand for digital content". While the development of ICT hardware and infrastructure contributed greatly to the expansion of digital trade in the past decade, new ways of using technology and the information it generates, including big data, social networking and cloud computing, has increasingly become an important element of digital trade. Social networks, such as Facebook and Twitter, have become a standard means of communication between businesses and consumers. Apart from the comprehensive quantitative analysis of digital trade in the United States by USITC (2013), there are few studies for other markets. The reasons behind this void in quantitative analysis are linked to limited data on digital trade or even e-commerce specifically. As noted by UNCTAD (2015, p. 12), "only a few countries – mainly developed ones – compile data on e-commerce revenue." The work on ICT for development done in partnership between UNCTAD and ITU suggest core indicators of digital trade; however, the indicators that measure the readiness of countries to engage in digital trade do not lend themselves well to measuring the value of such transactions. The problem is compounded when trying to separate domestic and cross-border digital trade. Without official statistics, previous studies have generally been based on private data sources, followed varying methodologies, and have limited geographical coverage (mainly OECD countries). In trying to measure e-commerce, UNCTAD (2015) categorizes e-commerce into four types based on electronic relationships between governments, enterprises and consumers: (a) B2B (business-tobusiness); (b) B2C (business-to-consumer); (c) B2G (business-to-government); and C2C (consumer-toconsumer). Among these categories, B2B – which is the digital trade between

businesses, such as between a wholesaler to a retailer – is dominant (UNCTAD, 2015; Asian Development Bank, 2015). An estimate of worldwide B2B e-commerce amounted to $19.9 trillion in 2015 and for global B2C about $2.2 trillion (UNCTAD, 2016a), while estimates for the e-commerce of the other categories are not available. The Asian Development Bank estimated that B2B transactions accounted for 90% of total e-commerce transaction value in Asia (ADB, 2015). However, these estimates are based on limited data and depend very much on the method of measurement. Despite accounting for a smaller share in total digital trade globally, the previous studies used estimates based on B2C e-commerce statistics (such as online shopping) to discuss trends and developments in digital trade due to the fact that data on B2C are relatively more available. Overall, it is estimated that B2C e-commerce is growing faster than B2B, and with Asia and the Pacific seemingly growing faster than the rest of the world (UNCTAD, 2016b).

EFFECT OF DIGITALIZATION ON IMPORT AND EXPORT

Digital trade also has implications for the improvement of existing systems of international trade statistics. One aspect of this is the need for the improvement of trade statistics to catch up with the fundamental changes in trade. The growing digitalization of trade is blurring the boundary between trade in goods and trade in services. For example, the digital purchase and delivery of books, films or music have increasingly replaced physical transactions. In some manufacturing industries, 3-D printing is transforming the shipment of physical goods into the online transfer of a digital file that can be used to produce the good at its point of consumption. Digitization in trade has also turned part of non-tradeable services to become tradeable. For example, most of the medical and educational services were previously seen as difficult to trade across borders but today are almost a standard part of tradeables taking the form of Telehealth or online courses. Current international trade statistics

has not been able to track digital trade properly. The need for service trade statistics at the disaggregated level has become greater than ever. For example, trade in products that can be digitized is increasingly shifting from trade in physical products such as DVD books or films to trade in services such as in the subcategory of personal and recreational services. In addition, conducting digital trade depends on inputs from computer and information services, telecommunications services, and professional services such as web design, data engineers, IT professionals etc. Unfortunately, tracking trade in services is highly limited due to the lack of comprehensive data. For example, unlike statistics on trade in goods, there are still no official statistics providing bilateral trade in services. Data on international trade in services is available for broad categories under the sixth edition of the IMF Balance of Payments and International Investment Position Manual (BPM6) from the WTO database.2 However, Digital trade also has implications for the improvement of existing systems of international trade statistics. One aspect of this is the need for the improvement of trade statistics to catch up with the fundamental changes in trade. The growing digitalization of trade is blurring the boundary between trade in goods and trade in services. For example, the digital purchase and delivery of books, films or music have increasingly replaced physical transactions. In some manufacturing industries, 3-D printing is transforming the shipment of physical goods into the online transfer of a digital file that can be used to produce the good at its point of consumption. Digitization in trade has also turned part of non-tradeable services to become tradeable. For example, most of the medical and educational services were previously seen as difficult to trade across borders but today are almost a standard part of tradeables taking the form of Telehealth or online courses. Current international trade statistics has not been able to track digital trade properly. The need for service trade statistics at the disaggregated level has become greater than ever. For example, trade in products that can be digitized is increasingly shifting from trade in physical products such as DVD

books or films to trade in services such as in the subcategory of personal and recreational services. In addition, conducting digital trade depends on inputs from computer and information services, telecommunications services, and professional services such as web design, data engineers, IT professionals etc. Unfortunately, tracking trade in services is highly limited due to the lack of comprehensive data. For example, unlike statistics on trade in goods, there are still no official statistics providing bilateral trade in services. Data on international trade in services is available for broad categories under the sixth edition of the IMF Balance of Payments and International Investment Position Manual (BPM6) from the WTO database.2 However, Measured by the share of telecommunications8 and computer-related services embedded in total exports there is a rise in digital intensity in total exports at the global and Asia-Pacific levels. The value added by telecommunications and computer-related services in world exports grew by 8.8% annually from 1995 to 2011.9 The growth rate is higher than the growth of world gross exports of 7.6% during the same period, causing the share of value-added by telecommunications and computer-related services in total export value to increase from 2.7% in 1995 to 3.3% in 2011. Similar to the global trend, the share of value added by telecommunications and computer-related services in total exports of Asia and the Pacific economies increased from 2.1% in 1995 to 2.6% in 2011.10 The smaller share in the Asia-Pacific region's exports compared with world exports, which may also be related to the lack of ICT infrastructure in the region as pointed out in ESCAP (2016b). It indicates that the region still has a great deal of latent potential for expanding the use of digital technology. Although developing Asia-Pacific economies are still considered to be latecomers to digital trade, they are catching up rapidly. The value of telecommunications and computer-related services rooted in total exports by the Asia-Pacific region grew by 11.1% annually from 1995 to 2011, while that of non-Asia-Pacific exporters was only 7.9%. Specifically, the use of computer technology by exporters in the Asia-Pacific region

grew quickly at 14.6% per year, while the growth rate was only 11.1% for exports by the rest of the world.

USE OF DGFT DIGITAL SIGNATURE CERTIFICATE

Digital technology does not only affect trade in personal, cultural and recreational services; the supply of most services has also been affected. For example, in the tourism industry, booking and payment for airline tickets, hotels, tours etc. are increasingly carried out over the Internet. Electronic banking and online insurance provision have taken an important share of the financial and insurance services. Professional services, such as accounting, legal or medical, are increasingly based on Internet-based communications; news services transmitted by digital networks, together with Internet telephone, e-mail, voice mail etc., constitute a majority of the communication services provided. Furthermore, in the sectors where the supply of certain services across borders appear to be unfeasible, digital technology has allowed new forms of supply, such as Telehealth. As the scope of Internet-enabled services is large, it then follows that cross-border trade in these sectors accounts for 88% or more of total world trade in commercial services. Digital technology is having an increasing impact on those services, but measuring it remains difficult. As explained above, the best that can be achieved is some estimation or approximation of the digital intensity of exports by using the proxy based on trade in value-added data. Therefore, any impact analysis is bound to be biased by having no exact data on the digital content in overall trade flows. Trade in value-added data indicates that the growth of digital trade has a relatively stronger impact on service trade than merchandise trade. Measured by the use of computers and telecommunication services in export value addition, digital technology in general plays a larger role in the export of services than in the export of goods. Among others, the sectors with high digital intensity include financial services (for example, Internet banking, although it is not possible to say how much of it is

crossborder), telecommunication services, research and development and business services, and renting of machinery and equipment (car rental services etc.). In the case of exports of goods, the publishing industry – which involves digital trade of e-books, e-magazines, online newspapers etc. – has the highest degree of digital intensity. It is followed by relatively high-tech industries that use digital and telecommunication technologies to facilitate their operations and participation in global value chains (e.g. chemical products, computer equipment, and electrical machinery and transport machinery. Education services lead the way in terms of the speed of growth of digital content in the exports by Asia and the Pacific. The increase of digital content in educational exports by Asia and the Pacific was nearly 200% from 1995 to 2011 (figure 7.5). Overall, there are 11 Asia-Pacific industries where the digital content in exports more than doubled from 1995 to 2011. For non-Asia-Pacific economies, it appears that the rate of digitization is relatively slower except in the case of printing, telecommunications and machinery renting businesses.

The availability of digital infrastructure is important for the development of digital trade. Part of the investment in digital infrastructure is the import of infrastructurerelated IT goods and services; however, the import intensity in each country differs, depending on various factors including domestic capacity to produce the digital infrastructure-related goods and services, and trade policy. Trade in value-added shows that the import share of digital infrastructure services in total exports globally increased from 14% in 1995 to 22% in 2011. In the case of Asia-Pacific exporters, the import share is higher than the world average. Since 1995, the share of imported telecommunication services has been 21% while the import intensity of computer and related services gradually increased from 23% in1995 to 25% in 2011. The growing significance of digital infrastructure-related imports implies that there is a need for an open trade environment for the sake of Figure

7.6 Sources of computer-related services used in exports, Asia-Pacific and rest of the world, 1995 and 2011 Source: ESCAP calculation using data from OECD-WTO TiVA, October 2015 version. Digital - trade development. In addition, intraregional trade is growing together with the rising importance of digital trade, especially intraregional trade in computer and related services. From 1995 to 2011, intraregional imports of digital infrastructure services grew faster than the imports from non-regional partners and domestic sourcing. As a result, the share of intraregional imports grew from 9% to 11% during those years (figure 7.6). In contrast, non-regional economies only source 2%-3% of the services from Asia and the Pacific.

FOREIGN TRADE AND DIGITAL SIGNATURE CERTIFICATES

As discussed in this chapter, requirements for analyses of digital trade issues need a combination of data on trade in services, input-output linkages and merchandise statistics at the most detailed level that is comparable across countries. Without a unified definition, proper conceptual framework and systematic data collections, key questions concerning policy design and regulation remain inadequately answered. Using the available official statistics, this chapter is aimed at contributing to closing the knowledge gap by suggesting proxies and a conceptual framework that can be indicative for highlighting major trends related to cross-border digital trade. The chapter focuses on a factual exploration of digital trade at the global and Asia-Pacific levels. In considering the use of digital technology and services in international trade in goods and services transactions as an attractive proxy, the study reveals that exporters in the Asia-Pacific region are rapidly increasing the use of digital technology to support their export activities, both directly and indirectly. The growth of digital trade is having a relatively stronger impact on service trade than on merchandise trade. The digital-intensive industries are relatively high-tech or high value-added.

Digitalintensive services sectors include financial services (for example, Internet banking), telecommunication services, R&D and business services, and the renting of machinery and equipment (car rental services etc.). In the case of manufacturing, the publishing industry, chemical products, computer equipment, and electrical machinery and transport machinery are among the sectors with high digital intensity. The availability of digital infrastructure is important to the development of digital trade. Imports of telecommunications and computer equipment play an important role in digital trade, especially that of Asia and the Pacific. This has opened intraregional trade opportunities as intraregional sourcing for those digital infrastructure products has been growing in recent years. However, the export opportunities are mainly clustered in large economies, especially China, Japan, India and the Republic of Korea. The trends and developments discussed can shed light on a broader policy framework. The digitalization of international trade brings about a greater need for an open trade environment and international cooperation. Non-discriminatory principles and international harmonization of rules and regulation are essential. The concept of an open environment is not new; however, what is added is the fact that "openness" in the world of digital trade does not only mean free flows of goods or services, but also the need for the free flow of data across national borders. In addition, the growing importance of digital trade brings to the fore a greater need for international cooperation, as a supportive environment for digital trade is more dependent on multilaterally agreed policies than on unilateral ones.

The platform takes certain shipment details from a shipper – origin, destination, transit time required, packaging details – and specifies which mode and route are best suited to that shipment. The system also generates the transportation and compliance documents relevant to the shipment based on the Incoterms under which is it moving.

The idea, Acosta said, is to reduce a shipper's reliance on forwarder relationships that aren't strategic, and to give shippers more control over their end-to-end import/export processes, starting with sourcing at origin. This stemmed from personal experiences Acosta had with shipments being poorly consolidated in Asia, which led to downstream impacts that multiplied in cost. Acosta is partnering with freight brokerage firms in Asia to link domestic transportation providers at origin, and is also in discussions with ocean carriers to secure capacity. Globatom will also work with product quality assurance labs, companies that perform audits of vendors at origin to assure that goods meet standards before they even get into the pipeline.

"Globatom provides a unique comprehensive approach that will revolutionize, simplify and illuminate the import/export process over the next decade much as the internet has transformed other industries such as newspapers, television and advertising," he said in a statement.

Seattle-based Globatom said it will complete beta testing in the fall and is eyeing further seed investment for potential future development. The spread of digital technologies is transforming all types of global flows — those of goods, services, money, and people — and this transformation is only in its earliest stages. Already, more and more of people across the globe engage in instantaneous cross-border exchanges of digital goods, from books and music to design files that enable 3-D printing of physical objects. As the infrastructure that supports the Internet expands, barriers of distance and cost that once seemed insurmountable have begun to fall away. Digital trade represents an important, albeit hard-tomeasure, component of these global flows. As it grows, develops, and assumes new forms, it is both facilitating globalisation and transforming it. Digitisation lowers marginal production and distribution costs, while broadening access to global commerce. The cost of participating in trade is reduced not just for large companies, but also for individuals, small firms, and entrepreneurs. This is

already spurring innovations in business models and spawning the emergence of micro-multinationals, micro-work, and microsupply chains that are able to tap into global opportunities. The Internet of Things (IoT) — the ability to monitor and manage objects in the physical world electronically — will enhance and accelerate these developments. Digitisation has already had a significant impact on trade by transforming logistics and supply chains; companies can readily track and collect information about a product, place, time, or transaction using sensors or other digital "wrappers," to improve their operating efficiency and reduce costs. This process, too, is at an early stage, and we believe that its impact could be considerable over the next decade. Manufacturers and oil and gas companies, among others, have already begun to see the initial payoff from IoT technologies in their operations. From monitoring machines on the factory floor to tracking the progress of ships at sea or parcels being shipped across frontiers, digital technologies are helping companies get far more out of their physical assets. The digitisation of global flows has been a key contributor to the explosive growth of cross-border data flows. Crossborder Internet traffic has increased 500-fold since 2000 — and with conservative assumptions will expand another eightfold by 2025. Together, these transformations will have broad implications for the future of globalisation. They will impact companies large and small, in emerging economies as well as in developed ones. Governments will be challenged to adapt their regulatory and taxation systems to deal with this upsurge in digitisation and digital trade. Policymakers will need to address sensitive issues around data security, privacy, and Internet governance. Trade agreements must be updated to reflect the new realities of global commerce and expanded to address new forms of cross-border commerce and customs procedures.

IMPACT OF DIGITAL TECHNOLOGY GLOBAL TRADE

Measuring digital trade and its impact on globalisation is complex. There is as yet no accepted definition of what it is and no

reliable data about its size (See Box: Defining and measuring digital flows). We begin our analysis by looking first at the result of digital trade: the surge in cross-border flows of data and communication. Between 2002 and 2012, cross-border Internet traffic grew by 60 percent a year.2 By 2025, on conservative assumptions, we estimate crossborder Internet traffic could grow another eightfold. A large part of the growth in the bits and bytes of data flowing around the world is from communication between individuals. As transmission costs have plummeted and speeds have soared, people and companies are using digital and mobile connections to share ideas, collaborate, and make social connections — both within countries and increasingly across borders. A researcher in one country can use an idea patented in another to develop a new product that is sold globally. Two friends in different countries can share their latest news via phone, email, Facebook, Twitter, or Instagram. A business executive can instant message a colleague in a foreign office. Photo sharing on Facebook illustrates the sheer scale and speed at which social media allows content to travel around the world. When US President Barack Obama was re-elected in 2012, his official victory photo was re-shared more than 600,000 times and "liked" more than 7 million times — and more than two-thirds of those shares and likes came from outside the United States.3 All of these exchanges generate cross-border flows of data. Voice-over-the-Internet Protocol (VoIP) has generated a surge in global cross-border telephone calls. These have more than doubled over the past decade from 162 billion call minutes in 2002 to 570 billion call minutes in 2014. Since 2004, the number of call minutes on VoIP has increased by 24 percent a year, while traditional analogue call minutes have grown by less than 8 percent. In addition to VoIP calls, cross-border computer-to-computer Skype calling has skyrocketed, similarly generating a torrent of cross-border data flows. By 2014, cross-border computerto-computer Skype calling was at the level of 44 percent of traditional international calls. Over the past decade, Skype calling has more than doubled every two years, growing at 46

percent a year compared with 8 percent in the case of traditional calls. This amounts to a more than 700 percent increase in Skype call minutes since 2008. But, the tsunami of data moving instantly across borders is not explained solely — or even primarily — by the new flows of global communication described above. While we cannot measure the exact share of Internet traffic that is due to emails, VOIP calls, and other forms of communication, we know that digitisation is enabling other types of global flows. In this paper we focus on three main ways digital technologies are transforming globalisation, beyond enabling communication and idea-sharing: One portion of the growth of cross-border data flows and Internet traffic is explained by trade in digital goods. While these are by no means a new phenomenon for the global economy, the range of goods that are purely digital and the proliferation of devices with which consumers can access digital content has turned a niche into a transformative global industry. Today many goods that used to be traded in physical formats — such as books, magazines, and movies — are now shipped in digital format through the Internet with practically no distribution and transportation costs. Consumers can choose from a near-endless supply of games, movies, music, books, magazines, and newspapers from anywhere in the world. Although most digital goods are consumed in the country where they were produced, a growing share is to customers in foreign countries. For example, Netflix, which provides movies and television shows online, has become an increasingly international business. By the end of 2014, nearly one-third of its streaming customers lived outside the US, a testament to the speed at which companies can establish a global footprint courtesy of digital technologies.6 The range of goods that can be traded digitally is expanding rapidly. In the future, consider how 3D printing technologies might alter the flow of physical goods. Rather than producing goods at scale in one location and shipping them around the world, firms might send digital design files across the Internet and then use 3D printers to produce the good in small batches locally. Replacement parts,

medical prosthetics, and industrial components are already being produced this way. Over time, the range of goods to which this could be applied is expanding and may include more complex industrial parts. Shapeways is an example of a digital platform that enables designers around the world to upload designs for products, use 3-D printing Digital trade is not easily defined or measured. The United States International Trade Commission (USITC) uses a narrow definition that identifies digital trade as the delivery of products and services over either fixed-line or wireless digital networks. It includes domestic commercial activity as well as international trade but excludes commerce in most physical goods, such as goods ordered online and physical goods that have a digital counterpart, such as books and software, music, and movies sold on CDs or DVDs. Another definition is broader as discussed in a study from the US Bureau of Economic Analysis, which looked at "digitally enabled" industries, such as finance, and counted all trade from those industries as part of digital trade, whether the trade was actually delivered digitally or not.4 However, it is hard to identify what industries are digitally enabled. An Organisation for Economic Co-operation and Development (OECD) study discussed some of the issues of identifying digital industries.5

CONCLUSION

The growing digital intensity has caused fundamental changes in trade; as a result, there is the need for the improvement of trade statistics to catch up with this process. Official and market research on cross border digital trade is starting to emerge; however, of particular concern with regard to measuring digital trade is the quality, methodology and transparency differences that inhibit cross-country benchmarking. The case studies tend to overstate the perception of B2C e-commerce, which in fact is not a good representation of cross-border digital trade in goods and services whereas B2B e-commerce is likely to be much more significant. Although cross-border data flows have been seen as an attractive

proxy, they suffer from the same issues as any web-based indicators – the fact that not all data transfers are the result of digital trade. In addition, a number of other technical issues and regulations complicate comparability and ability to map the flows of data with regard to sources and destinations of international trade goods and services. Even global labour markets are being transformed by online marketplaces. Online talent platforms, like UpWork and Freelancer.com, are one way to overcome immigration barriers, by bringing jobs to workers abroad rather than requiring them to immigrate. Freelancer.com and UpWork are the world's largest online labour marketplaces for freelance work, and together have nearly 27 million users worldwide, although they have been joined by many similar platforms. The vast majority of these platforms' users are companies in highincome countries hiring workers in low-income countries. For example, India is the largest destination for outsourced contracts, and the US is the largest spender. But, the virtual labour flows enabled by such platforms are rapidly spreading to new countries, such as the Philippines, and changing direction, with an increasing number of companies based in emerging markets hiring freelance talent in other countries

REFERENCE

1. *Asian Development Bank (2015). Aid for Trade in Asia and the Pacific: Thinking forward about Trade Costs and the Digital Economy. Manila. Available from*
2. *Ahmed, U., and G. Andolas (2015). Addressing barriers to digital trade. E15 initiative. Geneva: International Centre for Trade and Sustainable Development and World Economic Forum. Available from*
3. *Bernier, I. (2012). Local content requirements for film, radio, and television as a means of protecting cultural diversity: theory and reality. Available from*
4. *Cimino-Isaacs, C., and J. Zilinsky (2016). Local content requirements: backdoor protectionism spreading under the*

radar. Trade and Investment Policy Watch, 22 July. Washington D.C.: Peterson Institute for International Economics. Available from

5. *Economic and Social Commission for Asia and the Pacific (2016a). State of ICT in Asia and the Pacific 2016: uncovering the widening broadband divide. Technical Paper by the Information and Communications Technology and Disaster Risk Reduction Division. Bangkok: ESCAP. Available from www.unescap.org/resources/state-ict-asiaand-pacific-2016-uncovering-widening-broadband-divide. (2016b). Harnessing Science, Technology and Innovation for Inclusive and Sustainable Development in Asia and the Pacific. Sales No. E.16.II.F.12.*
6. *European Commission (2016). Digital Single Market website. Available from*
7. *Fredriksson, T. (2013). E-commerce and development: key trends and issues. Presentation at the Workshop on E-Commerce, Development and SMEs, WTO, Geneva, 8-9 April.*

IMPACT OF DIGITALIZATION ON POLITICS

***SHINOS M**
Reg no 17213161061047
Department of Business Management,
Scott Christian college (Autonomous), Nagercoil.

****Dr. J. JANE THEEPA JEYA VANATHY**
Assistant professor Department of Business Management,
Scott Christian College (Autonomous), Nagercoil
Affiliated to Manonmaniam Sundaranar University, Abishekapatti,
Tirunelveli - 627 012, Tamil Nadu, India.

ABSTRACT

Digitalization is the process of converting information into a digital computer readable format, in which the information is organized into bits. The result is the representation of an object, image, sound, document or signal by generating a series of numbers that describe a discrete set of the result is called digital representation or, more specifically, a digital image., for the object , and digital form for the signal.

Keywords: *Politics, Globalisation*

INTRODUCTION

In the modern practice the digitalized data is the form of binary numbers, which facilitate computer processing and other operations, but , strictly speaking , digitizing simply means the conversion of analog source material into a numerical format; the decimal or any other number system that can be used instead Digitization is of crucial importance to data processing, storage and transmission, because it 'allows information of all kinds in all formats to be carried the same efficiency and also intermingled' ,

unlike analog data which typically suffers some loss of quality each time it iis copied or transmitted, digital data can, in the theory, be propagated indefinitely with absolutely no degradation. This is why it is a favoured way of preserving information for many organisatioons around the world.

OBJECTIVES

To study about the impact of Digitalization in politics.

DIGITALIZATION ON POLITICS IN INDIA

The field of political risk is the type of governments that political decisions, events or conditions will affect the profitability of a business actor or the expected value of a given economic action.

A risk previously mainly applied when conducting business with oil states or emerging economics but due to the recent political developments in traditionally stable western democracies, political risk increasingly lies in the west as well.

The relationship between online political discussion and political participation has been widely debated most studies suggest that online political talk can have positive implications for citizens participation.

The politics for globalization of the labour force have almost completely eradicated certain types of sectors in developed countries while not bringing much in return for the people working in those particular industries. Manufacturing work is now vastly over represented in china. India and other developing markets compared to, for instance, Europe. The difference between globalization and digitalization is that the first is mainly a conscious political choice. While the latter is mostly client demand driven.

IMPACT OF DIGITALIIZATION IN POLITICS

Digital India is a campaign launched by the to ensure the Government's services are made are made available to citizens electronically by improved online infrastructure and by increasing

internet connectivity or by making the country digitally empowered in the field of technology.

The communication process with a change in itself With the advent of new media technologies the communication process became more direct fast and complex. This has also led to a process of shrinking words and expanding access at the same time.

The social media is not only confined to the metropolis but reaching to the small cities and towns among the educated youth laptop, mobile and internet driven discourses have already been initiated in the society.

Digitalization in the political public sphere

The social political fabric of india could be seen as changing vibrantly, process during the recent phase of electoral process under the democratic setup and one could observe the change in political behaviour of people on the similar lines as john dewey puts forth while discussing the optimistic view of public.

The recent developments in politics have shown new interest in political risk and to find the underlying causes. In that respect the election of Donald Trump and Brexit. The most recent an prominent examples of vox populi risk have shown that a large part of the electorate does not agree with the policies in favour of globalization. Hence, it is one of the hottest topics in contemporary western politics. The current fascination with the potential of new productivity increases have been the biggest and perhaps the inexorable factor reducing a risk previously mainly applied when conducting economics but due to the recent political developments in tradionally stable western democracies political risk increasingly lies in the west as well.

The relationship between online political discussion and political participation has been widely debated most studies suggest that online political talk can have positive implications for citizens participation.

The politics for globalization of the labour force have almost completely eradicated certain types of sectors in developed

countries while not bringing much in return for the people working in those particular industries. Manufacturing work is now vastly over represented in china. India and other developing markets compared to, for instance, Europe. The difference between globalization and digitalization is that the first is mainly a conscious political choice. While the latter is mostly client demand driven the number of manufacturing jobs as seen in the previous paragraph, technological innorations now even target the service sectors as well.

METHODOLOGY

Details and information for the purpose of the study was collected from the secondary sources viz., website, published articles, thesis and dissertation journals magazines etc.,

IMPACT OF DIGITALIZATION ON INDIAN POLITICS

The Indian Government is encouraging the public to stop relying too much on cash transactions. The goal of this initiative is marketing Indians adopt digital payments. Digital transactions help people abide by the law, which is beneficial for the economy. By using plastic money, citizens can enjoy freedom and security because it functions on technical grounds. Digital payments are known to be beneficial in any part of the world. People who engage in terrorism and money laundering activities mainly use cash to transact. Therefore, using digital payments is a good way to discourage terrorism and money laundering. Socialogists and political scientists are looking the virtual ground with sanguinity for creation of the public sphere beyond the elite class. Here the argument of issues becomes strong. Due to the heterogeneous character of the masses and citizens to set a common objective or a common set of agenda is still a problem to be looked at while considering the virtual public sphere as ready for discourages.

Digitalization also makes it easier for the nation of progress by promoting the use of e-services. Digitization makes I easy for

citizens to use many government services. By promoting digitization efforts.

Digitization has played a significant role in helping the Indian economy to flourish. The best example is creating job opportunities for young people. Everybody in the nation now talks about information technology. Furthermore, the "make in India" initiative encouraged the youth to start enterprises and this turned them into dynamic entrepreneurs. Digitization is what made this possible.

In the recent years, the central government banned currency notes of the Rs. 1000 and Rs. 500 denominations. This ban was known as demonetization. The government took this step in order to restrain the circulation of black money in the nation and prevent the associated problems.

The Indian government is encouraging the public to stop relying too much on cash transactions. The goal of this initiative is making Indians adopt digital payments. Digital transactions help people abide by the law, which is beneficial for the economy. By using plastic money, citizens can enjoy freedom and security because it functions on technical grounds. Digital payments are known to be beneficial in any part of the world. People who engage in terrorism and money laundering activities mainly use cash to transact. Therefore, using digital payments is a good way to discourage terrorism and money laundering.

The society is already feeling the impact of digital economy in terms of employment and contribution to the gross domestic product among other things. Digitization in India makes it easier for citizens to access high speed internet. Digitization has also simplified mobile banking. Reaching the Digital India scheme is now easier because a Common Service Center is available in the cloud, where you can share private data. The cloud is secure and safe from cyber crimes.

Digitization assists enterprises to streamline their processes by slowly eliminating their dependency on paperwork. Banks are

one of the biggest beneficiaries of digitization. They can now use certain processes to enable their staff to do more work.

Digitization also makes it easier for the nation to progress by promoting the use of e-services. Digitization makes I easy for citizens to use many government services. By promoting digitization efforts, the government is also moving towards development. It is creating new opportunities in terms of technology, jobs and transparency. Digitization has also helped streamline the process of filing taxes.

As a digital agency, GBIM technologies Pvt. Ltd is a firm believer in the idea of digitization. This idea can transform India into an economic powerhouse by reducing paperwork and dependency on government employees. This can even help reduce corruption.

At GBIM, we believe that digitization will have significant implications for the household, corporate and public sectors. We offer many digital services at GBIM including digital marketing. As a business owner, we can help you to enhance your online presence, generate more revenue and improve brand recognition. Our digital marketing professionals use the best practices and solutions to assist business owners to market their services or products. Our digital marketing team consists of social media professionals, SEO experts, content developers and graphic designers among other experts

CONCLUSION

This article summarizes the findings of the contributions collected in the special issues for political problem, digitalization develops frame works. Agreed the process political power and political situations.

The usage of the terms is not only limited to some developing countries a like.

REFERENCES

1. *https://www.google.com/search?q=digitalization+on+policitics &ei=6x11XJ671JiQwgPP15rw*
2. *https://www.tandfonline.com/doi/full/10.1080/10584609.2016.1 243178*
3. *https://www.fes-connect.org/people/politics-in-the-digital-society/*
4. *https://link.springer.com/referenceworkentry/10.1007%2F978-3-319-06091-03*
5. *https://en,wikipedia.org/wiki/Digital India*
6. *https://www.omicsonline.org/open-access/use-of-new-media-in-indian-politicalca*
7. *https://www.unrisd.org/80256B3C005BCCF9/(httpAuzPages)*
8. *https://www.unrisd.org/80256B3C005BCCF9/(httpAuzPages)*

IMPACT OF DIGITALIZATION ON SOCIETY

***LEENET A.VARGHESE**
Ph.D. Research Scholar, Manonmaniam Sundaranar University,
Abishekapatti, Tirunelveli-627012, Tamil Nadu, India

****Dr. C.SUBATHRA**
Assistant Professor of Commerce & Research Supervisor,
Pioneer Kumaraswamy College, Nagercoil,
Affiliated to Manonmaniam Sundaranar University, Abishegapatti,
Tirunelveli – 627 012, Tamilnadu, India.

ABSTRACT

Digital technology also has a positive impact on the fundamental aspects of our culture, including health care, law enforcement, art, education, mobility and religion. For example, the technological advancements in the health care industry have provided doctors with the opportunity to treat patients in a virtual environment by using mediums like video conferencing. Video conferencing also plays an important role in the legal environment. It enables judges to listen to the cases of criminals who cannot enter courtrooms because of security reasons.

Keywords: *Digital India, Internet*

INTRODUCTION

Digital technologies have a huge impact on society. Digitization is affecting every industry on areas like financial policy, employment and competition. Digitization is not a new phenomenon. For many years, this concept has encompassed technological developments in general, especially in information technology. The impact of digital economy is being felt in many areas. For instance, some of the services and products that were previously analogue, such as travel arrangements, music, film, translations and media are becoming digital.

In the past few decades there has been a revolution in computing and communications, and all indications are that technological progress and use of information technology will continue at a rapid pace. Accompanying and supporting the dramatic increases in the power and use of new information technologies has been the declining cost of communications as a result of both technological improvements and increased competition. According to Moore's law the processing power of microchips is doubling every 18 months. These advances present many significant opportunities but also pose major challenges. Today, innovations in information technology are having wide-ranging effects across numerous domains of society, and policy makers are acting on issues involving economic productivity, intellectual property rights, privacy protection, and affordability of and access to information. Choices made now will have longlasting consequences, and attention must be paid to their social and economic impacts. One of the most significant outcomes of the progress of information technology is probably electronic commerce over the Internet, a new way of conducting business. Though only a few years old, it may radically alter economic activities and the social environment. Already, it affects such large sectors as communications, finance and retail trade and might expand to areas such as education and health services. It implies the seamless application of information and communication technology along the entire value chain of a business that is conducted electronically

OBJECTIVES

- To understand about the idea of Digital India Program
- To study about the opportunities of the program for the people of the country
- To study the Impact of Digital India by 2019

METHODOLOGY

Details and Information for the purpose of the study was collected from the secondary sources viz., websites, published articles, thesis and dissertation, journals, magazines etc…..

IDEA OF DIGITAL INDIA PROGRAM

1. Digital Locker System aims to minimize the usage of physical documents and enable sharing of e-documents across agencies. The sharing of the e-documents will be done through registered repositories thereby ensuring the authenticity of the documents online.

2. My Gov.in has been implemented as a platform for citizen engagement in governance, through a "Discuss", "Do" and "Disseminate" approach. The mobile App for MyGov would bring these features to users on a mobile phone.

3. Swach Bharat Mission (SBM) Mobile app would be used by people and Government organizations for achieving the goals of Swachh Bharat Mission.

4. Design framework would allow citizens to digitally sign a document online using Aadhaar authentication.

5. The **Online Registration System (ORS)** under the hospital application has been introduced. This application provides important services such as online registration, payment of fees and appointment, online diagnostic reports, enquiring availability of blood online etc.

6. National Scholarships Portal is a one stop solution for end to end scholarship process right from submission of student application, verification, sanction and disbursal to end beneficiary for all the scholarships provided by the Government of India.

7. Daily has undertaken an initiative namely **Digitize India Platform (DIP)** for large scale digitization of records in the country that would facilitate efficient delivery of services to the citizens.

8. The Government of India has undertaken an initiative namely **Bharat Net**, a high speed digital highway to connect all 2.5 lakh Gram Panchayats of country. This would be the world's largest rural broadband connectivity project using optical fibre.

9. BSNL has introduced **Next Generation Network (NGN)**, to replace 30 year old exchanges, which is an IP based technology to manage all types of services like voice, data, multimedia/ video and other types of packet switched communication services.

10. BSNL has undertaken large scale deployment of Wi-Fi hotspots throughout the country. The user can latch on the BSNL Wi-Fi network through their mobile devices.

11. To deliver citizen services electronically and improve the way citizens and authorities transact with each other, it is imperative to have ubiquitous connectivity. The government also realises this need as reflected by including '**broadband highways'** as one of the pillars of Digital India. While connectivity is one criterion, enabling and providing technologies to facilitate delivery of services to citizens forms the other.

HIGHLIGHTS OF THE PROGRESS IN DIGITAL INDIA

• More than 12,000 rural post office branches have been linked digitally and soon payment banking would also become a reality for them.

• The government also plans to make 'digital village' across the country, by linking all schemes with technology. The 'digital village' would be powered by LED lighting, solar energy, skill development centres and e-services like e-education and e-health.

• Electronic transactions related to e-governance projects in the country have almost doubled in 2015, owing to the Digital India Programme. According to government website electronic transaction aggregation and analysis layer (eTaal), 3.53 billion transactions took place in 2014, which almost doubled in 2015 to 6.95 billion.

• The progressive policies and aggressive focus on 'Make in India' have played a significant role in the resurgence of the electronics manufacturing sector.

PROPOSED IMPACT OF DIGITAL INDIA

A. Economic impact

According to analysts, the Digital India plan could boost GDP up to $1 trillion by 2025. It can play a key role in macro-economic factors such as GDP growth, employment generation, labor productivity, growth in number of businesses and revenue leakages for the Government.

As per the World Bank report, a 10% increase in mobile and broadband penetration increases the per capita GDP by 0.81% and 1.38% respectively in the developing countries. India is the 2nd largest telecom market in the world with 915 million wireless subscribers and world's 3rd largest Internet market with almost 259 million broadband users. There is still a huge economic opportunity in India as the tele-density in rural India is only 45% where more than 65% of the population lives. Future growth of telecommunication industry in terms of number of subscribers is expected to come from rural areas as urban areas are saturated with a tele-density of more than 160%.

B. Social impact

Social sectors such as education, healthcare, and banking are unable to reach out to the citizens due to obstructions and limitations such as middleman, illiteracy, ignorance, poverty, lack of funds, information and investments. These challenges have led to an

imbalanced growth in the rural and urban areas with marked differences in the economic and social status of the people in these areas.

Modern ICT makes it easier for people to obtain access to services and resources. The penetration of mobile devices may be highly useful as a complementary channel to public service delivery apart from creation of entirely new services which may have an enormous impact on the quality of life of the users and lead to social modernization.

The poor literacy rate in India is due to unavailability of physical infrastructure in rural and remote areas. This is where m-Education services can play an important role by reaching remote masses. According to estimates, the digital literacy in India is just 6.5% and the internet penetration is 20.83 out of 100 populations.

The digital India project will be helpful in providing real-time education and partly address the challenge of lack of teachers in education system through smart and virtual classrooms. Education to farmers, fisher men can be provided through mobile devices. The high speed network can provide the adequate infrastructure for online education platforms like massive open online courses (MOOCs).

Mobile and internet banking can improve the financial inclusion in the country and can create win-win situation for all parties in the value-chain by creating an interoperable ecosystem and revenue sharing business models. Telecom operators get additional revenue streams while the banks can reach new customer groups incurring lowest possible costs.

Factors such as a burgeoning population, poor doctor patient ratio (1:870), high infant mortality rate, increasing life expectancy, fewer quality physicians and a majority of the population living in remote villages, support and justify the need for tele medicine in the country. M-health can promote innovation and enhance the reach of healthcare services.

Digital platforms can help farmers in know-how (crop choice, seed variety), context (weather, plant protection, cultivation best practices) and market information (market prices, market demand, logistics).

C. Environmental impact

The major changes in the technology space will not only brought changes to the economic t

The next generation technologies will help in lowering the carbon footprint by reducing fuel ecosystem. The ICT sector helps in efficient management and usage of scarce and non-renewable resources.

Cloud com

Puting technology minimizes carbon emissions by improving mobility and flexibility. The energy consumption can be decreased from 201.8 terawatt hour in 2010 to 139.8 in 2020 by higher adoption of cloud data centers causing a 28% reduction in carbon footprint from 2010 levels.

To Study the Opportunities of the Program for the people of the country

1 — Grants for research and technical assistance. IFAD makes grants for research and capacity building in agriculture, natural resources, and related strategies to address rural poverty. It organizes its grants into those which it makes available at the country level, and those at regional and global levels.

IFAD's grant recipients include the centers of the Consultative Group on International Agricultural Research *(CGIAR)*; intergovernmental organizations in which IFAD's member states participate; national governments; civil society organizations; and private-sector entities. Only organizations which are based in or work in IFAD's member states are eligible for grants.

Many of the large grants support international agricultural research in networks or at regional scales, as well as other international efforts for rural development. Larger grants are mainly in the range of US$0.5 million to US$2 million.

IFAD's operations in a country are framed by that country's Country Strategic Opportunities Program *(COSOP)*. Project concepts and subsequent project design must be consistent with the COSOP.

Most small grants *(<US$500 thousand)* focus on capacity building, awareness raising, knowledge networks, policy advocacy, and rural innovation

. **2 — Indigenous Peoples Assistance Facility**. The Indigenous Peoples Assistance Facility *(IPAF)* aims to strengthen indigenous peoples' communities and their organizations by financing small-projects which foster self-driven development.
Grants range from US$20 thousand to US$50 thousand.

The central objective of a COSOP is to ensure that IFAD country operations produce a positive impact on poverty. The document reviews the specific rural poverty situation in order to determine geographic sites and thematic areas for IFAD operations. The COSOP also highlights the innovation IFAD intends to promote in the country programme.

The COSOP discusses institutional and policy factors that affect IFAD operations and their impact on people living in poverty. In particular, local governance and the empowerment of smallholders are the main determinants of an environment that encourages pro-poor projects.

Additionally, the COSOP includes an overview of IFAD's previous operations in the country. It also integrates the lessons learned, particularly from evaluation studies, into future operational directions.

To ensure strong country ownership, the COSOP design and implementation process is characterized by wide stakeholder

consultation. It is also designed to be aligned with the country's poverty reduction strategy and planning framework.

It clearly indicates potential strategic partners among multilateral and bilateral donors, taking into account the comparative advantage of each.

1. Highways to have broadband services: Government aims to lay national optical fibre network in all 2.5 lakh gram panchayats. Broadband for the rural will be laid by December 2016 and broadband for all urban will mandate communication infrastructure in new urban development and buildings. By March 2017, the government aims to provide nationwide information infrastructure.

2. Easy access to mobile connectivity: The government is taking steps to ensure that by 2018 all villages are covered through mobile connectivity. The aim is to increase network penetration and cover gaps in all 44,000 villages.

3. IT Training for Jobs: This initiative seeks to train 10 million people in towns and villages for IT sector jobs in five years. It also aims to train 0.3 million agents to run viable businesses delivering IT services. Additionally, the project involves training of 0.5 million rural IT workforce in five years and setting up of BPOs in each North-eastern state.

4. Manufacturing of electronics: The government is focusing on zero imports of electronics. In order to achieve this, the government aims to put up smart energy meters, micro ATMs, mobile, consumer and medical electronics.

5. Provide public access to internet: The government aims to provide internet services to 2.5 lakh villages which comprises of one in every panchayat by March 2017 and 1.5 lakh post offices in the next two years. These post offices will become MultiService centres for the people.

6. E-Governance: The government aims to improve processes and delivery of services through e-Governance with UIDAI, payment gateway, EDI and mobile platforms. School certificates, voter ID

cards will be provided online. This aims for a faster examination of data.

7. E-Kranti: This service aims to deliver electronic services to people which deals with health, education, farmers, justice, security and financial inclusion.

8. Global Information: Hosting data online and engaging social media platforms for governance is the aim of the government. Information is also easily available for the citizens.

9. MyGov.in is a website launched by the government for a 2-way communication between citizens and the government. People can send in their suggestions and comment on various issues raised by the government, like net neutrality.

10. Early harvest programs: Government plans to set up Wi-Fi facilities in all universities across the country. Email will be made the primary mode of communication. Aadhar Enabled Biometric Attendance System will be deployed in all central government offices where recording of attendance will be made online. IS INDIA DIGITALLY READY there is no doubt in it. India is ready for this. Immediately with the introduction of this campaign, many organizations came forward to lend their hands for achieving India a digitally equipped country. Organizations like BSNL, Reliance Ltd. are coming forward to spread digitalization among rural areas. And over 42000 villages all over India will be having seamless mobile connectivity by 2018. The Internet Saathi initiative aims to cover 4,500 villages over the next 18 months, starting with Gujarat, Rajasthan and Jharkhand. India is aiming to achieve universal digital literacy across the country. The prime importance is to make sure every individual can be able to leverage the potential of Digital India. The focus is at least one person in a household should transform into an e-literate. This can be achieved by BBNL which is planning to connect 2, 50,000 panchayats under the scheme. This will ensure the digitization and connectivity of local institutions like panchayats offices, schools, other government offices and libraries.

IMPACT OF THE SMARTPHONE DIGITAL ON SOCIETY

The broadcast and reportage around the court case sparked a public debate around the digital age of consent. An Taoiseach Leo Varadkar was brought into the debate, reaffirming that 13 should be the age of digital consent.

The furore surrounding the case and *The Late Late Show* report felt as if Ireland had just been alerted to the prevalence of online predators and the cocktail of dangers that await young people using advanced technologies such as smartphones.

There were calls for a ban on smartphones being used by children of primary-school age and for more stringent age verification processes in place by the various app and social media companies.

The thing is, this is nothing new. We have been warning about these dangers for some time now. And yet, the whole country seemed to act like this was a new thing.

Are smartphones the new candy?

Smartphones are something of a miracle technology, capable of doing a lot more than simply sharing pictures on Snapchat or Instagram. They are powerful computers and most users barely scratch the surface in terms of their capabilities, instead using them just to communicate or to game.

In the intervening years, smartphones have become more important than toys in many children's eyes.

Smartphones have also found themselves at the centre of a litany of troubling issues for kids as well as adults, from bullying to suicide.

Saying that smartphones are bad or banning them is not the answer. Education and etiquette are only part of the answer. Unlike how sex education had been bungled in recent decades, we can't bury our heads on the issue any longer.

The truth is, the genie is out of the bottle. While many parents rightly restrict their kids from owning smartphones until they reach a certain age, some are already familiar with tablet computers and their parents' phones from an early age. In a lot of cases, kids are given iPod devices as a kind of stopgap before they own their own SIM and phone number, which is redundant when you think about the fact that an iPod is simply an iPhone without a SIM and is just as powerful in a Wi-Fi area.

Parents are asking themselves how to manage this topic responsibly. There are no clear answers except to create an environment where kids can communicate openly with parents about what's happening in their lives, offline and online.

Part of society's inability to handle the issue adroitly is also down to the fact that these kids are truly digital natives and have a relationship with technology that is unfathomable to most adults, even today's vaunted millennials.

These kids are growing up with this technology and it will, for better or worse, inform their future lives, careers and relationships.

The need for a digital safety commissioner is urgent

Last year, the Irish Government agreed that the digital age of consent should be 13. The decision was part of the planned legislation for harmonising Irish law with the EU's General Data Protection Regulation (GDPR), which comes into force on 25 May this year.

The thing is that every nation, not just Ireland, has had to do a lot of growing up in recent years, thanks to digital. Adults, too, are undergoing an education in digital safety and etiquette.

When we were children, we were all taught the safe-cross code for crossing the street and the importance of not talking to strangers. As growing adults, we had to learn how to be street-smart and protect ourselves emotionally and physically in life. And now, digital adds a whole extra, complicated layer to everything.

It is hard to tell people to respect each other online or in these social media apps when the very president of the United States doesn't even think before he tweets.

But education and understanding is a critical part of the solution. In the coming weeks, the Minister for Communications will be holding talks with various security, legal and education bodies about creating the very first digital safety commissioner role in Ireland.

The appointment is a reflection of – and partly accelerated by – the kind of abuse public figures such as politicians themselves are receiving over social media. But not only politicians, individuals of all standing in society have become anxious victims of online abuse, slurs and provocation. In cases such as revenge porn, for example, victims are often caught in a kind of purgatory waiting for action by police or social media players to remove the damaging content.

For the appointment of a digital safety commissioner to matter, we need to be able to get social media giants such as Facebook and Instagram to act speedily to remove abusive material. Therefore, important legislative changes are required.

For example, it is a criminal offence in Ireland to harass a person by phone or text message, but not by social media.

It is understood that the new digital safety commissioner role will be modelled on similar positions that have been established in New Zealand and Australia. Like the Australian counterpart, the digital safety commissioner may also have an educational role, to focus on teaching young people about online behaviour and operate a complaints service for those who may experience bullying.

Are we smart enough for our smartphones?

And that's just it. How do you treat people in your life? Would you talk to total strangers the same way in person and with the same familiarity that you would through the brave filter of Twitter or Facebook? Would you say the same things to their faces that you would through the safe distance of a mobile screen?

Society overall needs to learn how to behave in the digital world.

Society needs the smarts to handle smartphones correctly.

Banning or curtailing their use by younger age groups is not the complete answer. At best, it is a crude solution.

Smartphones are getting smarter. Just look at the latest iPhone X from Apple, which comes with in-built AI, as well as the Huawei Mate P10, which has its own neural processor.

"The smartphone … is now a pocket-size PC," the editors wrote. "It facilitates instantaneous personal connections that make phone conversations seem like cave paintings. … The device seems to have limitless potential."

Last year, researchers at the Nielsen group reported that smartphones accounted for four out of every five phones purchased in the U.S. They estimated that a smartphone now sits in about two-thirds of American adults' pockets.

According to the Massachusetts Institute of Technology's Technology Review, the smartphone paced the TV as the consumer technology with the fastest adoption rate, reaching 40 percent market saturation in just 2 1/2 years.

With more than 1 billion users worldwide and 2.5 million apps — and counting — available across Google and Apple's digital marketplaces, smartphones are impacting day-to-day life in some surprising ways.

Human memory

According to a report released in June by researcher ComScore, the majority of Internet traffic (60 percent) now comes from mobile devices rather than desktops, which long served as the dominant online portal. And with search engines and digitally managed contact lists just a touch away, analysts say smartphones are affecting how the brain processes information.

The authors of a study published in the August 2011 issue of "Science" conclude that persistent access to information via search engines — Google, in particular, which fields more than 1

billion search queries per day — is changing how the brain catalogs knowledge. In a sense, the study authors conclude, Internet-connected devices such as smartphones have become a kind of "external memory source."

"These results suggest that processes of human memory are adapting to the advent of new computing and communication technology," the authors write. "We are becoming symbiotic with our computer tools, growing into interconnected systems that remember less by knowing information than by knowing where the information can be found."

Chattanoogan Tris Vickery says, "I appreciate the vast amount of recorded knowledge that is now accessible at any time [via smartphones]. As [punk vocalist/poet] Henry Rollins said not too long ago, 'There's no longer an excuse for stupidity."

In a 2012 survey by Elon University and the Pew Research Center, technology experts debated the merits and pitfalls of the hyper-connectivity and instantaneous access to information afforded by smartphones. If adoption rates.

CONCLUSION

Although digital technology can impact society in a negative manner, most of the impact is positive. It helps make our lives better. Digital Marketing Services also helps people become more efficient and this leads to increased productivity. Technology also enables us to save time and money. It has also worked well in uniting the world and transforming it into a digital village. This in turn assists people to overcome their racial, cultural and continental barriers.

REFERENCES

1. *https://en.wikipedia.org/wiki/Social_development_theory*
2. *https://www.lindau-nobel.org/blog-on-fundamental science/*

3. *https://www.e-ir.info/2011/08/29/the-importance-of-development-in-societies-emerging-from-conflict/*
4. *https://econrsa.org/publications/research-briefs/impact-basic-and-social-infrastructure-investment-economic-growth-and*
5. *https://umidigital.co.uk/blog/affect-social-media-society/*
6. *https://www.diplomacy.edu/resources/general/impact-development-society*
7. *http://www.revolutionaryminds.in/2017/07/21/digitalization-of-india-and-its-impact-on-indian-society/*
8. *https://www.dnb.com/perspectives/analytics/the-impact-of-digitization.html*
9. *https://futureoftrade.com/the-impact-of-digitalisation*
10. *https://www.plm.automation.siemens.com/global/en/webinar/iiot-the-next-big-digital-disruption/31921*
11. *http://www.siecon.org/online/wp-content/uploads/2014/10/Evangelista-Guerrieri-Meliciani-193.pdf*

IMPACT OF INTERNET DIGITALIZATION ON SOCIETY

***JAYARAJ A. S**
Ph. D Research Scholar, Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli-627012, Tamil Nadu, India

****Dr. C. SUBATHRA**
Assistant Professor of Commerce & Research Supervisor, Pioneer Kumaraswamy College, Nagercoil , Affiliated to Manonmaniam Sundaranar University, Abishegapatti, Tirunelveli – 627 012, Tamilnadu, India.

.

ABSTRACT

Each digitization wave has a specific set of social and economic impacts. Computing, broadband and mobile telephony networks have been instrumental in relaxing industry scalability constraints, thereby allowing traditional sectors of the economy to grow more rapidly. The alleviation of the resource constraint has led to increased demand for labor in service industries, (e.g., financial services, education, health care, etc.) although it also had a positive effect in manufacturing. Finally, the first wave appears to have had an impact on the growth of household income, and the facilitation of social inclusion (access to information, government services, and entertainment content).

Keywords: *Technology, Information*

INTRODUCTION

Digitization refers to the transformations triggered by the massive adoption of digital technologies that generate, process, share and transfer information. Digital transformation is not a one-time event. It proceeds in waves driven by technological progress and diffusion of innovations. The first wave of digitization is associated with the introduction and adoption of what today are

considered "mature" technologies, such as management information systems aimed at automating data processing and applied to monitoring and reporting of business performance, telecommunications technologies such as broadband (fixed and mobile) and voice telecommunications (fixed and mobile) which allow the remote access of information.

TECHNOLOGIES OF FREEDOM, THE NETWORK SOCIETY, AND THE CULTURE OF AUTONOMY

In order to fully understand the effects of the Internet on society, we should remember that technology is material culture. It is produced in a social process in a given institutional environment on the basis of the ideas, values, interests, and knowledge of their producers, both their early producers and their subsequent producers. In this process we must include the users of the technology, who appropriate and adapt the technology rather than adopting it, and by so doing they modify it and produce it in an endless process of interaction between technological production and social use. So, to assess the relevance of Internet in society we must recall the specific characteristics of Internet as a technology. Then we must place it in the context of the transformation of the overall social structure, as well as in relationship to the culture characteristic of this social structure. Indeed, we live in a new social structure, the global network society, characterized by the rise of a new culture, the culture of autonomy.

Internet is a technology of freedom, in the terms coined by Ithiel de Sola Pool in 1973, coming from a libertarian culture, paradoxically financed by the Pentagon for the benefit of scientists, engineers, and their students, with no direct military application in mind (Castells 2001). The expansion of the Internet from the mid-1990s onward resulted from the combination of three main factors:

- The technological discovery of the World Wide Web by Tim Berners-Lee and his willingness to distribute the source code to improve it by the open-source contribution of a global

community of users, in continuity with the openness of the TCP/IP Internet protocols. The web keeps running under the same principle of open source. And two-thirds of web servers are operated by Apache, an open-source server program.

- Institutional change in the management of the Internet, keeping it under the loose management of the global Internet community, privatizing it, and allowing both commercial uses and cooperative uses.
- Major changes in social structure, culture, and social behavior: networking as a prevalent organizational form; individuation as the main orientation of social behavior; and the culture of autonomy as the culture of the network society.

Our society is a network society; that is, a society constructed around personal and organizational networks powered by digital networks and communicated by the Internet. And because networks are global and know no boundaries, the network society is a global network society. This historically specific social structure resulted from the interaction between the emerging technological paradigm based on the digital revolution and some major socio-cultural changes. A primary dimension of these changes is what has been labeled the rise of the Me-centered society, or, in sociological terms, the process of individuation, the decline of community understood in terms of space, work, family, and ascription in general. This is not the end of community, and not the end of place-based interaction, but there is a shift toward the reconstruction of social relationships, including strong cultural and personal ties that could be considered a form of community, on the basis of individual interests, values, and projects.

The process of individuation is not just a matter of cultural evolution, it is materially produced by the new forms of organizing economic activities, and social and political life, as I analyzed in my trilogy on the Information Age (Castells 1996–2003). It is based on the transformation of space (metropolitan life), work and economic activity (rise of the networked enterprise and networked work

processes), culture and communication (shift from mass communication based on mass media to mass self-communication based on the Internet); on the crisis of the patriarchal family, with increasing autonomy of its individual members; the substitution of media politics for mass party politics; and globalization as the selective networking of places and processes throughout the planet.

But individuation does not mean isolation, or even less the end of community. Sociability is reconstructed as networked individualism and community through a quest for like-minded individuals in a process that combines online interaction with offline interaction, cyberspace and the local space. Individuation is the key process in constituting subjects (individual or collective), networking is the organizational form constructed by these subjects; this is the network society, and the form of sociability is what Rainie and Wellman (2012) conceptualized as networked individualism. Network technologies are of course the medium for this new social structure and this new culture (Papacharissi 2010).

As stated above, academic research has established that the Internet does not isolate people, nor does it reduce their sociability; it actually increases sociability, as shown by myself in my studies in Catalonia (Castells 2007), Rainie and Wellman in the United States (2012), Cardoso in Portugal (2010), and the World Internet Survey for the world at large (Center for the Digital Future 2012 et al.). Furthermore, a major study by Michael Willmott for the British Computer Society (Trajectory Partnership 2010) has shown a positive correlation, for individuals and for countries, between the frequency and intensity of the use of the Internet and the psychological indicators of personal happiness. He used global data for 35,000 people obtained from the World Wide Survey of the University of Michigan from 2005 to 2007. Controlling for other factors, the study showed that Internet use empowers people by increasing their feelings of security, personal freedom, and influence, all feelings that have a positive effect on happiness and personal well-being. The effect is particularly positive for people

with lower income and who are less qualified, for people in the developing world, and for women. Age does not affect the positive relationship; it is significant for all ages. Why women? Because they are at the center of the network of their families, Internet helps them to organize their lives. Also, it helps them to overcome their isolation, particularly in patriarchal societies. The Internet also contributes to the rise of the culture of autonomy.

The key for the process of individuation is the construction of autonomy by social actors, who become subjects in the process. They do so by defining their specific projects in interaction with, but not submission to, the institutions of society. This is the case for a minority of individuals, but because of their capacity to lead and mobilize they introduce a new culture in every domain of social life: in work (entrepreneurship), in the media (the active audience), in the Internet (the creative user), in the market (the informed and proactive consumer), in education (students as informed critical thinkers, making possible the new frontier of e-learning and m-learning pedagogy), in health (the patient-centered health management system) in e-government (the informed, participatory citizen), in social movements (cultural change from the grassroots, as in feminism or environmentalism), and in politics (the independent-minded citizen able to participate in self-generated political networks).

There is increasing evidence of the direct relationship between the Internet and the rise of social autonomy. From 2002 to 2007 I directed in Catalonia one of the largest studies ever conducted in Europe on the Internet and society, based on 55,000 interviews, one-third of them face to face (IN3 2002–07). As part of this study, my collaborators and I compared the behavior of Internet users to non-Internet users in a sample of 3,000 people, representative of the population of Catalonia. Because in 2003 only about 40 percent of people were Internet users we could really compare the differences in social behavior for users and non-users, something that nowadays would be more difficult given the 79

percent penetration rate of the Internet in Catalonia. Although the data are relatively old, the findings are not, as more recent studies in other countries (particularly in Portugal) appear to confirm the observed trends. We constructed scales of autonomy in different dimensions. Only between 10 and 20 percent of the population, depending on dimensions, were in the high level of autonomy. But we focused on this active segment of the population to explore the role of the Internet in the construction of autonomy. Using factor analysis we identified six major types of autonomy based on projects of individuals according to their practice

a) Professional economy
b) communicative autonomy
c) entrepreneurship
d) autonomy of the body
e) sociopolitical participation
f) personal, individual autonomy

IMPACT OF BASIC DEVELOPMENT ON SOCIETY

In post-conflict environments, the peace achieved is often relatively unstable, facing a wide range of risks which have the potential to force a return to violence. The work of Paul Collier emphasises the importance of economic development in reducing these risks. Whilst I agree that this is important, I argue that Collier's approach ignores the political and social dimensions of post-conflict recovery. Furthermore, more should be done to ensure that economic development in countries emerging from violence is conflict sensitive. By this I mean that the development strategy used must take account of the causes of war, and the reasons for the continuation of fighting. By making poverty reduction and pro-poor growth a more integral part of the development strategy employed in post-conflict states, a more positive peace is likely to occur which both reduces the risks of future conflict as well as tackling the grievances that caused and were manifested through the previous conflict. I will begin this essay by looking critically at the causes of

war and the reasons for the continuation of war, exploring how poverty and inequality can interact with these processes. I will then move on to consider the importance of pro-poor growth, and how this can help in producing a more positive peace. Finally, I will consider El Salvador where the post-conflict development strategy largely ignored the causes of the conflict, and consequently further entrenched poverty and inequality through structural adjustment policies. These reforms failed to address the causes of the conflict, leading to a negative peace in El Salvador characterised by violence and high levels of crime.

The immediate post-conflict stage can be seen as a negative peace, which means that whilst 'overt physical violence may have ended, other political, social, economic and cultural factors that adversely affect human opportunities and quality of life may persist' (Mac Ginty, 2010: 34). The major challenge in post-conflict states is to transform this environment into one of a positive peace, which begins to ensure long-term development and removes the structural causes of violent conflict, stretching "the concept of peace beyond the limits of its elasticity, going far beyond a reaction to the immediate aftermath of violent conflict" (ibid.). In trying to bring about a positive peace it must be acknowledged that peace cannot be achieved through temporary solutions, but must be matured through a long-lasting transition which helps people move on with their lives by providing opportunities for survival outside of conflict (Barakat & Chard, 2004: 18; Darby & Mac Ginty, 2003).

Miall *et al* (2000) identify three areas that must be considered in post-conflict reconstruction. These are political/constitutional incapacity, economic/social debilitation and psycho/social trauma. It is the second one that I focus upon in this essay. One way of reducing the risk of future conflict is through economic growth, something emphasised in the research undertaken by Paul Collier (Collier & Hoeffler, 2002; Collier *et al*, 2003; Collier *et al*, 2006). However whilst these works have been important in addressing the factors likely to make peace more

sustainable, what has been largely ignored is the political process that surrounds this transition (Mac Ginty, 2010: 32). In this essay I argue that whilst economic development is important in reducing the risk of future conflict, it should be done in a way that does not exacerbate previous grievances, and instead, attempts to rectify them (Barakat, 2010: 11). In order to promote a sustainable reconstruction process "consideration has to be given to the root causes of the conflict … which involves understanding the manifestations of poverty and seeking to increase a country's general development through various approaches to poverty reduction" (Jones, 2010: 115). Poverty and inequality are major causes of conflict (Stewart, 2010: 287 – 290), both economically, as Collier suggests, as well as politically, in the form of grievances. Therefore attempts at reducing them should form an integral part of a country's post-conflict development strategy.

I begin my essay by looking critically at the causes of conflict, and consider what role poverty and inequality play in this process as both causes and consequences of conflict. I then move on to explore the beneficial impacts that post-war development centred round poverty reduction and pro-poor development can have. I end by considering the case of El Salvador where poverty and inequality (which were important in initiating and sustaining the conflict) were ignored in the post-war development strategy resulting in a negative peace characterised by violence and crime. Whilst poverty and inequality are widely recognised as both a cause and consequence of conflict, "the contemporary neoliberal guided peace-building approach is not well suited to tackling socio-economic grievances" (Ahearne, 2009: 2 – 3).

Poverty as a Cause and Consequence of Conflict

Econometric analysis has highlighted factors that are likely to increase the risk of conflict. These consist of conditions that favour insurgency such as the type of terrain; the presence of foreign, cross border sanctuaries; and most importantly, "the

government's police and military capabilities and the reach of government institutions into rural areas" (Fearon & Laitin, 2003: 80). Also important is the availability of finance; the cost of rebellion; where military advantage lies; and the population size (Collier & Hoeffler, 2004: 588). It is when organisation, resources, and opportunities become available that people will mobilise for collective action, including rebellion (Tilly, 1978: 59)

Impact of digital revolution on Society

- The World has become a Global Library - We have access to all the information in the world through Internet. Not only information, but softwares, products, contacts of individuals, etc.,
- Communication has become immediate and in-person with every individual
- Essentially changed the way we buy products and experience services. Paved way for Online Marketing place in every sphere of the life. Examples are amazon.com, uber, airbnb among others
- Though Digital Revolution connected the world together, Humans isolated themselves in a room with their Digital Devices, reduced in-person social interactions while multiplying total social interactions.
- And Many more,

Industrial Revolution has taken away manual labour jobs from the people. Manpower ceased to be the value worker can offer for sale. Machines appeared to be much more effective, useful and reliable for moving things around, hitting things hard and repeating the same operation many times over. Humans were pushed away from physical labour to intellectual.

Digital Revolution is taking away intellectual labour from people. The ability of people to perform simple problem solving and decisions making is rapidly losing its value. Computers equipped with sophisticated algorithms are lot more effective, lot more

reliable and lot cheaper for controlling processes, making decisions and solving problems repetitively. Humans will be pushed away from all the mundane daily tasks like accounting, management, tracking, driving, scheduling, following, etc. It will all eventually be done by computers.

If you take technological development in perspective, you can see that at the end it should become what the natural things are - something like plants. They look after themselves, mostly. They provide fruits without asking for anything back from humans and they replace themselves when they break or grow old. That is what technology should ideally be, and that is what it would ultimately become if continues on the current path - replacement of nature. Machines will provide to humans some goods and services without needing for anything back. Well, except for the environment and natural resources which they do need, but not from humans of course. They are going to need the land, the minerals, the air and the sun to keep them running. It is in far perspective of course, not 2030 agenda. Not yet anyway.

Where will the people go when they no longer needed neither as a source of physical labour nor intellectual labour?
They will be pushed into the following three niches:

1. To become the Creatives! Computers don't set up agendas and don't create. Not yet anyway. That may be the next step, but for Digital Revolution that is currently happening that is not in agenda. There will be lots of work for people to create stuff using all sorts of computer tools - CADs, IDEs and alike.
2. To become the Gardners. Man was originally placed into the "Garden of Eden" to look after things. That may be still the place when things run themselves. Man can still have a job of looking after that "garden". It is to do the maintenance jobs that computers simply cannot do due to the limits of their physical and chemical composition. May be.

3. To become the Parasites. Humans can simply be beneficiaries of machines that are running themselves and provide humans with free goods and services. Humans can still do their ape-things like building social hierarchies, fight for status, conspire, kill each other for the right to leave offspring, etc. They can become like Zoo-animals in the Zoo that is run by the machines they made themselves. No visitors though, and nowhere to escape like in The Madagascar.

If you don't like the above perspectives, remember - there is always the alternative. We can always regress! We can stop developing our machines, burn the monitors and crash the keyboards. We can get back to pencil and paper workflow and then all the way back to manual labour. It won't take much nor long for us to return back to caves. This will always remain an option for us.

THE SOCIAL IMPACT OF NEW COMMUNICATION TECHNOLOGIES

Information is about to replace energy as the basic resource on which an economy runs. Microelectronic innovations of information-processing and transmission are the powerful forces driving the development of the information society (Rogers and Larsen, 1984). 2. At the organizational level, the very nature of work life may be changing, due to the impact of such new communication technologies as video- and computer conferencing, electronic messaging, word processing, telecopying, and electronic filing and retrieval. These technologies are presently at a very early stage of diffusion and adoption, but their potential impact may be considerable (Rogers, 1983b). 3. At the household level, new communication technologies like interactive television systems (representing a unique combination of computers, satellites, and cable television), videotex, home computers, and videotape recorders are being introduced. These innovations too are at a very early stage of acceptance, and some (like interactive television

systems) are only at the stage of relatively small-scale experimentation by national governments and by private companies. In fact, the reality of use of these new technologies as disclosed by surveys of users, provides a sobering contrast with well-publicized accounts of their future potential. For example: • The PRESTE L system has been available for 5 or 6 years in England, but has only about 10,000 subscribers today, many fewer than originally expected. •The QUB E system in Columbus, Ohio, U.S., is used interactively only rarely by participating households (Chen, 1981); a similar experience has been reported with interactive T V systems in several other nations. • Home videotape recorders are only used an average of about 12 minutes per day, and that mostly to record T V broadcasts for delayed viewing (these are results from a recent survey in Sweden). In the United States, Levy (1980) reported an average of about half an hour of video recorder watching per day. At the heart of the new communication technologies being applied to society, work organizations, and the home, is the computer. And what is new about these computer applications is their small size and low cost, an advantage made possible by putting increased amounts of computer memory and computer control, on a semiconductor chip. The Information Revolution, is fundamentally, a Microcomputer Revolution. Together with other technical innovations, microelectronics technology increases the capacity of both crucial components of communication technology (Picot and Anders, 1983a and 1983b): (a) the technical network, which allows 110 ROGERS AND PICOT for the telecommunication of signals, and (b) adequate end-user equipment, which allows for comfortable handling of complex telecommunication processes. Chips, digital data transport, fiber optic cable, and other new technical means enhance the quality, quantity, and speed of information traffic in technical communication networks. Microcomputer innovations enrich the end-users' terminals by facilitating access and handling, as well as by integrating this equipment with other functions of information processing (storage, retrieval, computing, printing, etc.).

SOCIAL IMPACTS OF NEW COMMUNICATION TECHNOLOGIES

As we face the potential, yet unfulfilled, of the new communication technologies, one might expect that social scientists in general and those specializing in communication behavior in particular, would play an important role in conducting policy-relevant investigations. But this has not occurred to date. As an eminent Finnish scholar stated: The communication scholars could have been in the forefront of not only studies of new communication technologies but also in planning their applications. However, research has been both late and inadequate; many fine research opportunities have been lost forever. Research data have been replaced with personal opinions and normative value judgements. (Wiio, 1981) But in very recent years, a small number of useful researches have been carried out that deal with certain aspects of the new communication technologies. There are an estimated 83 field experiments underway on videotex around the world, but many, especially in the U.S. , are being conducted by private companies that will not allow scholars to gain access to their research results. Based on the authors' participation in several investigations, and our literature review of others, plus personal discussions with some of the researchers and practitioners involved, we wish to draw certain general lessons about the nature of the impacts of the new communication technologies. We will concentrate heavily, but not exclusively, on the new communication technologies being applied in the work organization. Our discussion of impacts takes the form (a) of important research results or perspectives, and (b) of methodological problems and their partial and/or possible solution. Channel Versus Content Studies The general research question addressed by a very great deal of behavioral research on new communication technologies in the work organization is: "What are the effects of the new communication technol- IMPACT OF NEW COMMUNICATION TECHNOLOGIES 111 ogies? 1 ' This question is similar to the main direction of mass communication

research in the United States and (less so) in Europe for the past 40 years, but with some very important differences. One such contrast is that the contemporary research concern is with the impact of a new type of communication channels. Although computer-based communication technologies are much more than just another communication channel—very often they are, at the same time, a tool for informationcomposition, searching, filing, and retrieval—many studies deal only with the channel effect, rather than with a particular type of message content (Short, Williams, and Christie, 1976; Johansen, Vallee, and Spangler, 1979; Christie, 1981). For example, we now study the effect of electronic messaging systems in the office, while various mass media researchers have studied the effect of T V violence on children. Both are effects studies, but they are quite different in the details of their research design and in their degree of specificity. But clearly there are parallels in the general research designs used in past media effects studies, and in contemporary researches on the impact of new office (and home) technologies. This similarity is entirely understandable, but we are concerned that a too-close following of the intellectual paradigm of the past will limit the policy payoff of present research. Nevertheless, we begin by listing some of the important effects now being investigated in studies of new office technologies, and then suggest some additional possibilities. Channel Use in Organizations How does the introduction of new communication technologies in a work organization change the existing patterns of organizational communication? A general issue here, of great importance, is to determine the magnitude of the consequences of the new technologies. Do they indeed cause a "revolution" in communication behavior? The early evidence on this point seems to be negative. The impacts are incremental, rather than revolutionary. For example Picot, Klingenberg, and Kränzle (1982) conclude from studies of the impact of new office automation technology in German organizations that new electronic text media (such as computer mail, telefax, and computer conferencing) will mainly replace such older

text media as mail and telex, which—in terms of number of contacts—play a minor role in organizational communication. These new media will replace oral channels only to the extent that oral communication is used for transmission of relatively simple information content. However, the proportion of that kind of oral channel use is not very high in organizations. The explanation for this finding is that much face-to-face communication is still considered necessary by organizational programs

CONCLUSION

People often make the assumption that the Internet will simply always be there: always on, serving our needs in a rapidly-shifting digital world. The reality, however, appears in stark contrast to this idea. We have seen, through the many voices and perspectives reflected in this report, how those most closely connected with the origin, growth and development of the Internet are unsure, even fearful, for its future. They know that there are no guarantees for what lies ahead, only questions that need answering. They reflect the belief that if future generations are to continue to be able to interact with the digital world, then we need to be much more conscious of the path that we are creating today for the Internet of tomorrow. One of the main ambitions with this project has been to illustrate these uncertainties surrounding the Internet's future. We have done this by looking at the interdependencies that exist between key driving forces of change and what they mean for some of the most important aspects of our society. From market developments to cyber security, to the relation between new technologies and the actions of governments, the possible outcomes are as varied as they are unknown. Indeed, nothing is certain, but in the process of surveying and interviewing the community, a number of defining themes came to the before. Three in particular stand out. The information infrastructure offers both promise and peril: promise in the form of extraordinary ease of access to a vast array of

information, and peril from opportunities both for information to be reproduced inappropriately and for information access to be controlled on new and problematic ways: providing an appropriate level of access to digital IP is central to realizing the promise of the information infrastructure. Ensuring that this appropriate level of access becomes a reality an raises a number of difficult issues that in the aggregate constitute to the digital dilemma.

REFERENCES

1. *https://www.nap.edu/read/9601/chapter/8*
2. *https://www.researchgate.net/publication/228894032_Assessing_the_Impact_of_Basic_Research_on_Society_and_the_Economy*
3. *https://ostaustria.org/bridges-magazine/volume-14-july-12-2007/item/2324-science-impact-rethinking-the-impact-of-basic-research-on-society-and-the-economy*

IMPACT OF TECHNOLOGY AND DIGITALIZATION AMONG ADOLESCENCE

***AISWARYA C**
Ph.D Research Scholar, Manonmaniam Sundaranar University,
Abishekapatti, Tirunelveli-627012, Tamil Nadu, India

****Dr. C. SUBATHRA**
Assistant Professor of Commerce & Research Supervisor,
Pioneer Kumaraswamy College, Nagercoil,
Affiliated to Manonmaniam Sundaranar University, Abishegapatti,
Tirunelveli – 627 012, Tamilnadu, India

ABSTRACT

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. Digitalization confronts organizations with huge challenges and opportunities. With all economic and societal sectors being affected by emerging technologies, the digital economy is highly volatile, uncertain, complex, and ambiguous. Digitalization is the term which means making the things to be easily accessible to the person of the world. The main purpose of making the world digital is to improve the person of different places to change their way of living.*

Keywords: *Digital India, Economy*

INTRODUCTION

Digitalization is a process to make people more advances in different field like banking, shopping, marketing, ticketing, etc. to access easily in few seconds. Digital India has emerged revolution in this technology world by bringing digitalization in the country. Digitalization is the process of converting the analog signal to digital and Vice-Versa.

Technology affects our society significantly. Technology improves the efficiency in education, medicine, transportation, entertainment and more. The rise of new technology has improved our daily lives by bringing many conveniences; it increases the rate of obesity and the isolation in our society.

Classification of Technology New Technology: A newly introduced technology that has an impact on how company produces products example computer software. High Technology: It refers to advanced and highly sophisticated technology. It is used by variety of industries having certain characteristics such as: It employs a highly educated people; most of them are scientist and engineers. It competes with technological innovation. It has level of research and development expenditure.

Adolescence is a transitional stage of physical and psychological development that generally occurs during the period from puberty to legal adulthood. Adolescence is usually associated with the teenage years, but its physical, psychological or cultural expressions may begin earlier and end later. For the example, puberty now typically begins during preadolescence, particularly in females. Physical growth and cognitive development can extend into the early twenties. Thus, age provides only a rough marker of adolescence, and scholars have found it difficult to agree upon a precise definition of adolescence.

OBJECTIVES

- To understand about Impact of Technology.
- To study about Impact of Technology.
- To understand about Digitalization among Adolescence in India.
- To know about Digitalization among Adolescence in Future generation.
- To understand about Impact of Technology and Digitalization among Adolescence.

METHODOLOGY

Details and information collected for the purpose of the study was collected from the secondary sources viz., Websites, Articles, Thesis, and Dissertation, Journals, Magazine etc.

IMPACT OF TECHNOLOGY

Technology, mainly computers and video games, have made a vast difference in our society. Many years ago people often used type writers, went, dancing, did puzzle, and played board games for entertainment. Nowadays, the use of computers has become extremely popular. If an individual is not using a computer for some form on entertainment, they are most likely using it for something along the lines of school or work. Technology has gone from being a convenient tool to being a bad impact on society. Not only is it insulting the intelligence of many young adults, but it is also taking away from one's social behavior.

Technology and human life cannot be separated. We use technology; depend on technology in our daily life and our needs and demands for technology keep on rising. Its poor application has resulted in the pollution of the environment and it has also caused a serious threat to our lives and society. This calls for the proper use of technology. The biggest challenge facing people is to determine the type of future we need to have and then create relevant technologies which will simplify the way we do things.

The computer and telecommunications industry has been advancing tremendously in the last decades in United States. In the future, almost everyone in the economy will be utilizing technology in one way or another. As a result, technology will have positive effects on the economy.

Technology plays a crucial role in the development of countries. It is very important both for developed countries and developing countries as technology progress will enable countries to be more competitive in the global market. Thus progress in

technology helps countries to develop the economy and strengthens their trading positions in the competitive global market.

Technological change sometimes socially uproots the population and people drift about in search of new centers of employment. Sometimes, this drafting may result in a new geographical distribution of population. Technology directly changes the pattern of the social life.

Technology flows to less developed countries mainly through MNCs. MNCs have carved places and images for themselves distinct from local companies. People who are associated with the MNCs are better paid than the people working with the local companies.

For the business houses who wish to import technology, there are additional problems. They will have to provide for the training of technicians and supervisors, testing and replacement of raw materials and parts, which are not available locally.

Moreover, the developed countries may not be willing to lend the technology, They will never pass on the key technology such as design know-how, which will help the importing country.

The technology which the developed countries are willing to lend is limited in scope and is mainly aimed at exploiting the markets in which they are interested. Let us assume that there are foreign companies who are willing to transfer the technology, there is still the problem relating to choosing a right collaboration and obtaining clearance from Government.

DIGITALIZATION AMONG ADOLSCENCE

Adolescents today live enmeshed in digital media, such as computers, video games, cell phones, and other hand-held devices. It referred to as digital natives, many have lived their entire lives surrounded and immersed within digital worlds. These new technologies are undoubtedly popular among adolescents, but parents and often observers often see them as negative influences. Digital worlds giving rise to new behaviors or we seeing the transfer

of traditionally adolescent behaviors to digital worlds. Some of the opportunities, challenges, and dangers that come with technology use. We ensure that young people use technology safely. We tackle some of these questions in this book, and hope to leave the reader with an understanding of how youth influence and are influenced by newer forms of interactive technologies.

Adolescents are avid users of mobile devices. Close to 80 percent of adolescents in the United States messages per day . Concerns over how young people are spending their time are not new. Adults have long worried about how exposure to various from of past media, such as the radio, television, video games and even comic books influence children.

Media consumption is at an all-time high adolescents spend an estimated 7.5 hours per day consuming media. Mobile devices now provide almost constant connectivity to peers, social networks and the media. Much of what occurs online is public, or has the potential to be, raising concern about privacy and the lasting effects of information shared online on adolescents lives. It may be that adolescents high usage of new technologies, combined with their rapid cognitive, physical and social development, makes them more vulnerable to ill effects of technology (over) usage.

Alternatively, the plasticity that characterizes this period may allow adolescents to optimize their potential within the digital world. Research is just beginning to emerge regarding how mobile technologies are influencing adolescents still developing brains, bodies and relationships.

Adults observe adolescents spending time alone together, physically together but each interacting with their mobile device. The concern is that young people are missing out on opportunities to develop key social and relationship skills. Experimental research decreases their closeness and the amount of personal information they disclose.

If the mere presence of a mobile phone can influence the quality of conversations among adults. Interestingly, most research

has not supported the idea the time adolescents spend on their mobile devices is preventing them from developing or maintain g close relationships. While time spent online does displace time spent with friends and family, for most adolescents frequent virtual communication has been shown to strengthen the quality of existing relationship.

DIGITALIZATION AMONG ADOLESCENCE IN FUTURE GENERATION

Digital technology can be a game changer for disadvantaged children, offering them new opportunities to learn, socialize and make their voices heard- or it can be yet another dividing line. Millions of children are left out of an increasingly connected world. As digital technology rapidly evolves, so can the risks children face online-from cyberbullying to misuse of their private information to online sexual abuse and exploitation.

Digital technology carries immense potential to solve some of the development challenges faced by young people. On the other hand, the negative consequences of the digital wave threaten the privacy of young people who may not be equipped with levels of digital literacy necessary to assess as well as adopt measures of protection.

This includes the perspectives of children and adolescents on the impact of digital technology in their lives-telling their own stories about the issues that most affect them. The urgent need to make the internet safer for children and adolescents while increasing access to digital technology for every child and adolescent. Especially the most disadvantaged. Lifestyle during adolescence does not only have an impact on youth's own health, but also on the health of future generations. Thus, facilitating good heath choice in early life should be a priority in public health programs. This is emphasized in an article Nature involving researchers from the Centre for Fertility and Health.

The generation of youth between the age of 10 and 24 has received insufficient attention, both with respect to their health and their life situation. The authors stresses that investing in adolescents as the parents of the next generation is important for the will-being of both current and future generations. The article reviews large datasets showing global trends of development in health and points at potential mechanisms for transmission of health between generations.

IMPACT OF TECHNOLOGY AND DIGITALIZATION AMONG ADOLESCENCE

Technology has made the system more complex. Though the modern machines work faster and better. But they fail often because of their complexity. Eventually technology might lead to simplicity and small independent operational units, who work to fulfill of dreams of a common man.

The most significant impact of technology is greater productivity. The example of quantitative increase is more production at less cost. In a hospital, the effect may be qualitative such as maintaining electronic monitoring equipment regardless of its cost.

Technology refers to change and more change. This poses another to business community. A new technology may develop a new industry but destroy an existing one. Even the organization which is associated with a particular technology will have the same life pattern as that of the technology.

The influence of the media on the psychosocial development of children is profound. Thus, it is important for physicians to discuss with parents their child's exposure to media and to provide guidance on age-appropriate use of all media, including television, radio, music, video games and the Internet.

In close collaboration with UNICEF and their Steering Committee partners, Inter Media designed an in-depth hybrid quantitative-qualitative method in order to understand the broad

trends and underlying nuances of Kenyan young people's access to, use of, and experiences with digital and social media from their perceptions and in their own language. The study involved two-part Digital Youth Clinics in four locations in Kenya and included 120 active 12-17 year-old users of digital and social media.

The data highlight positive impacts of social media use as well as the risks and potential harm to young people's physical and mental health. The data have also informed the development of guidelines and actions to support parents, practitioners in education and health, policy-makers and researchers.

Nearly half of young people in the sample (46%) reported changing their health-related behaviours as a direct result of accessing content from social media A sizeable minority of young people (43%) report that health-related content on social media positively impacts their health There are many different types of content that young people access, create and share on social media that influence their health-related understandings and behaviours.

CONCLUSION

The results of this study indicate that adolescents in treatment for obesity, and girls in particular, experience weight stigma online and, thereby, undertake a range of self-presentation strategies to conceal and modify their bodies and their weight. Most students enjoy learning about Digital Media due to the fact that it is close to the dynamics of play. It is a subject that demands doing, exploring, making mistakes, experimenting and practicing. The fact is, it is important for adolescents to learn and understand technology. It's become a part of daily life for all people to use a computer or a cell phone. As more of the world's information is digitized and more people and things are networked, the economics of the digital, networked economy will become ever more important.

REFERENCES

1. *https:// www. bartleby.Com*
2. *https://www. useoftechnology.Com*
3. *https://www.ukessays. Com*
4. *https://www.nap.edu/read/2469/chapter/9#159*
5. *https://www.researchgate.net*
6. *http://web.simmons.edu/~chen/nit/NIT'93/93-211-maku.html*
7. *https://narva.ut.ee/digy/*
8. *https://www.itu.int/en/ITU-D*
9. *https://en.wikipedia.org/wiki/Digitization*
10. *https://www.gartner.com/it-glossary/digitalization/*
11. *www.coursera.org/learn/impact-of-technology*
12. *https://www.researchgate.net*
13. *https://en.wikipedia.org/wiki/Adolescence*
14. *https://www.apa.org/pi/families/resources /newsletter/2014/12/digital-age*
15. *https://adolescentsourfuture.com/2017/12/children-in-a-digital-age*
16. *https://www.fhi.no/en/more/reserach-centres/Ce*
17. *https://www.quora.com/What-are-the-impact-of-technology-on-youth*
18. *https://cyberpsychology.eu/article/view/4268/4268/3307*
19. *https://journals.sagepub.com/doi/full/10.1177/2055207603*

DIGITAL MEDIA AND E-COMMERCE

***F. EFRAME SOPHIA SELVAM**
Asst. Prof. of Commerce,
St. John's College of Arts & Science, Ammandivilai.

ABSTRACT

The E-Commerce in Digital Media examines how digital media companies are evolving to take advantage of the rapid growth of e-commerce among consumers to supply an added revenue stream. The report identifies three primary e-commerce-driven strategies that digital media companies have pursued for growth, and investigates how brands can leverage these strategies to reach consumers as consumption habits both shopping and media change. E-commerce is the activity of buying or selling of products on online services or over the Internet. Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. Digitization is the process of converting information into a digital formate.

Keywords: *Electronic Markets*

INTRODUCTION

Digitizing information makes it easier to preserve, access, and share. In a telecommunication network where programs communicate by exchanging formally-defined messages (that is, through the act of messaging), a message broker is an intermediary program that translates a message from the formal messaging protocol of the sender to the formal messaging protocol of the receiver. The digital paradigm of creating products that fit to the customer is still largely unknown in the media industry.

OBJECTIVES

- **T**o understand about Digitalization in media.
- To study about Digitalization in Media and E –commerce.
- To understand about Digital Media and E-commerce in India.
- To know about Digital Media and E-commerce in Future Generation.
- To provide conclusion based on the study about Digital Media and E-commerce.

METHODOLOGY

Details and Information for the purpose of the study was collected from the secondary sources viz., websites, published articles, thesis and dissertation, journals, magazines etc…..

DIGITALIZATION IN MEDIA

A basic technology may also be put to many different uses. The engine of a sports car is overall quite similar to a family mini-van, but they are put to different uses. Although personal computers, advanced mobile phones, and, to an increasing degree, television sets are becoming multi-use terminals, they are still different. Characteristics of different terminals mean that they have different social functions and are used in different user situations

There are a number of well-known examples for the digital distribution and production of content, from music file sharing, over e-book readers to streaming services for movies or social media platforms. All these examples are manifestations of the digital transformation of the media industry. Some of these examples have been discussed the last fifteen years, while others are more recent examples of digitalization in the media industry. This simple listing of examples of digital transformation in the medial industry highlights two important observations.

First, the change in the media industry driven by digital technologies is an ongoing process. For example, music file sharing and e-book readers involve a number of digital applications which

have been at the center of attention over the last fifteen years. More recently though, the next wave of the digital revolution offers new opportunities through virtual reality applications which are expected to change the way content is displayed.

Second, the digital transformation experienced in the media industry offers a number of insights to key players in other industries. The media industry has been exposed to a number of waves of digital disruptions for several years. This industry has a history of more than fifteen years of coping with change. Banking, automotive and other major industries, on the other side, have been exposed to digital disruption only recently. Of course, we do not argue that it is possible to copy & paste digitalization strategies from one industry to another. But the development of the media industry in the last fifteen years offers interesting insights. For example, incumbents should take into account digital platforms as part of their environment when developing their competitive strategies. Digital platforms leverage their user base and innovate by expanding their business activities in different industries. Incumbents should investigate the disruptive potential of digital platforms in their industries and reconsider their core capabilities as well as enhance their digital footprint.

"Commerce-oriented revenue models for content providers: an experimental study of commerciality's effect on credibility" is authored by Benedikt Berger. The author is motivated by the observation that selling content or advertisements online might be less profitable than offline, hence content providers have to look for alternative revenue models which may challenge their credibility. The author investigates revenue models for the online distribution channel in the media industry. The study involves a vignette-based experiment focusing on the relationship between credibility and monetization of online content. The results highlight the differences between the revenue models but do provide any evidence of content distrust.

Digitization is a process that has both symbolic and material dimensions. Symbolically, digitization converts analog signals into bits that are represented as 1s and 0s. Digitization therefore produces information that can be expressed in many different ways, on many different types of materials, and in many different systems. Theoretically, almost any material with two easily differentiated states can be used to store and communicate digitized signals, including silicone transistors, punch cards, or atoms. This has motivated many scholars to highlight the "immaterial" (e.g. Manoff, 2006, 312) quality of information generated through digitization, while deemphasizing the material systems (transistors) on which that information is housed. That being said, it would be a mistake to ignore that digital information is ultimately stored on and communicated through the physical orientation of material transistors as bits. While digitized information is not limited to a specific set of materials, it is still, in the final instance, grounded in the configurations of materials. It is this way in which digitization mediates between the material and the immaterial (Manoff, 2006; Hayles, 2003) that makes digitization a unique process.

DIGITALIZATION IN MEDIA AND COMMERCE

E-commerce, also known as electronic commerce or internet commerce, refers to the buying and selling of goods or services using the internet, and the transfer of money and data to execute these transactions. Ecommerce is often used to refer to the sale of physical products online, but it can also describe any kind of commercial transaction that is facilitated through the internet. Whereas e-business refers to all aspects of operating an online business, ecommerce refers specifically to the transaction of goods and services. Ecommerce can take on a variety of forms involving different transactional relationships between businesses and consumers, as well as different objects being exchanged as part of these transactions. Ecommerce can take on a variety of forms involving different transactional relationships between businesses

and consumers, as well as different objects being exchanged as part of these transactions.

Moreover, artificial intelligence enhances the possibilities for machines to produce content which could have unpredictable consequences for the media industry. These technological developments are expected to disrupt the existing balance of power among the key players in the media industry once more. We have already witnessed a number of changes on the corporate level. Traditional media companies are fighting on the digital transformation of products, processes, business models and management structures. New players, like Facebook and Spotify, have entered the market. And these players again are already being challenged by newcomers like Snapchat.

Digital commerce is the buying and selling of goods and services using the Internet, mobile networks and commerce infrastructure. It includes the marketing activities that support these transactions, including people, processes and technologies to execute the offering of development content, analytics, promotion, pricing, customer acquisition and retention, and customer experience at all touch points throughout the customer buying journey.

E-commerce sales continue to increase across all industries and brand manufacturers want a share of this growth. To capitalize on this opportunity, brands are positioning themselves as the 'go-to' partner for retailers by offering services such as drop ship, or they're going "direct-to-consumer" without an intermediary. In this webinar, we discuss barriers to success, routes to market to consider, capabilities to enable growth and consumer connection. Behind every successful customer experience lives a complex, connected and dynamic mix of cloud and on-premises applications and technologies.

Digitalization has set a positive impact on every industry, and the entertainment industry is not an exception. This is mainly due to the rise of Internet and mobile phone technology. The

following four areas have undergone a **digital transformation** in the entertainment and media industry

1. Digitalization in movies and cinema

There was a time when people used to watch analog films. However, the movies that we watch in cinemas now are 'digitalized'. It is due to digitalization that audiences are entertained with clearer pictures and sharper sounds. The advent of 3D, 4D, and 5D films is another example of **digitalization in the entertainment industry**.

2. Digitalization in music

Thanks to **digitalization,** the cost of distribution and production of recorded music has become cheaper. Music lovers need not go to the store and purchase a physical copy of the album. Now, listeners can download songs through the Internet or watch music videos online. The digital form of music is so dominant that many online sites allow free download of these digital files.

3. Second screen phenomenon

The 'second screen' phenomenon has taken the world by storm. A second screen is a second electronic device that is used by television viewers to connect to a program they're watching. It is a smartphone, tablet, or a laptop which is used in between programs or commercials on television. This phenomenon attempts to make television more interactive for viewers. It also assists in providing social buzz around specific programs.

4. Digitalization in the video games industry

Traditionally, gamers would travel to their nearest video game store to purchase a game. Now, gamers have the choice of digitally downloading the game. Gamers may also play against someone located in another part of the world simply by connecting to the Internet. The online gaming market is growing rapidly due to high-definition and great user experience. Mobile games are also selling like never before.

Digital convergence is the future of the entertainment and media industry. Digital media is becoming seamlessly integrated

and readily available on the move. Entertainment industries are realizing the value of going digital and are working hand in hand with **digital consulting** firms to make the most of the benefits that the internet has to offer. When e-commerce sites first came into existence, many shoppers were hesitant to use them. The websites presented an entirely new platform for customers to interact with sellers. A place where they could not personally see or touch the merchandise they were buying. A system where they had to pay in advance by going through a long and tedious online payment process.

Today, e-commerce has changed drastically with significantly safer online transactions and super-fast checkouts. Online shopping continues to gain popularity, creating new opportunities for both established online retailers and brand new startups. But e-commerce isn't finished changing and improving. Let's take a look at some of the changes that we are likely to see in the future of e-commerce.

Customization

An online shopper can now buy products such as shoes, clothes, and even glasses online by selecting the right size, fit, power, etc. This is a level of customization that was thought to be impossible when e-commerce sites were just starting. Customization is going to the next level, and online retailers will soon be able to provide individualized outfits made with a particular customer in mind. Customers will just need to enter the right data while shopping from the comfort of their home, and an outfit that not only fits perfectly, but also caters to their individual style sense, will be delivered directly to their home.

Human assistance

It may sound strange at first, but according to Varsity Tutors CEO Chuck Cohn, having human assistance while shopping online could go a long way towards not only boosting sales, but also in forging long-term relationships with customers. The concierge-

style service will allow a real person to recommend products to a shopper based on personalization algorithms. Eventually, shoppers are highly likely to depend on the suggestions of their shopping assistants when trying to make their purchases.

Pinpointed recommendations

Some of the more established retailers are well known for providing great suggestions to shoppers. This is largely a result of the massive data aggregation and shopping algorithms they employ, which suggest the products most likely to appeal to specific customers. This process will reach new heights as the shopping algorithms become more advanced to include even more data from services and products used by each shopper. The results from such an algorithm, which has data from multiple sources, connected to each other only in relation to their relevance to the customer, can be astoundingly accurate. The bottom line is that e-commerce has grown from an insignificant and limited business opportunity to a full-fledged, ever-growing market. In fact, many brick-and-mortar stores have opened up their own online retail sites in recognition of the growing business opportunities in this field. As digital transformation grows more prominent with each passing day, e-commerce will grow bigger and better as shopping from home becomes easier and friendlier.

DIGITAL MEDIA AND E-COMMERCE IN INDIA

Our digital marketing courses are delivered by industry specialists and designed to give you a greater understanding in digital marketing. All programs are practical and give you tangible tools and techniques that can be used straight away. This Course is designed to enable you to develop a focused online marketing strategy that can help your organization increase sales and become more profitable. Organizations of all sizes are seeking to come to terms with the impact of the fast evolving digital world and digital marketing training will enable students to develop a focused online

marketing strategy that can help organizations become more efficient and more profitable.

This course enables in applying digital technologies to new business models, new product attributes and new ecosystem combinations. Enable multi-channel customer experiences and digital customer interactions, sales and channel distribution options and enhancing client productivity through digital technologies that enable new operating models, connected product platforms, analytics and collaboration capabilities.

Digital Marketing, E-commerce creates huge revenue as it helps to acquire customers and brand value. Customers are no more dependent just on content or a word-of-mouth before buying a product; they make sure to read the reviews about a product on all the platforms on which the product is listed. According to the recent analysis, 37 million social media visits led to 529,000 orders approx. Out of others, Face book helps to get more traffic to the website which leads to sales constituting average 85% of all the orders. It has become very important to grab customers attention as they get distracted really easily, this is where Digital Marketing comes into the picture and help E-commerce businesses to go through such challenges.

Digital Marketing focuses on incorporating it's appropriate marketing channels to make it easier for E-commerce businesses, find out few of the most important Digital marketing channels below. e-commerce website, Search Engine Optimization (SEO) is like a blessing in disguise. It is the practice of increasing the quantity and quality of traffic to your website through organic search engine results. the term Digital Marketing and we all think that we kind of know what actually it is. This thinking sometimes limits the scope and opportunity that the complete Digital Marketing landscape can actually offer, and that is why, when it comes to nailing it down, we either turn dumbfounded or get stuck. To come out of such scenarios, it is very important to know different types of Digital Marketing opportunities that are available to your business.

Digital marketing today depends upon the types of audience interactions. It revolves around managing and harnessing of different types of Digital Marketing Channels- And that is why we came up with this post to help you know how many types of Digital Marketing services are available to you. In India, shopping is a weekend event, which involves several members of the family and is synonymous with an "outing". While e-commerce makes shopping really easy and hassle free, it also takes the fun of touching, feeling and negotiating with the shopkeeper away from the shopper.

That is where the first barrier lies in the mind. And changing the behaviour of the consumer is the hardest of all. Fortunately for the e-commerce players, there are several cities that are devoid of good offline shopping areas, avenues that offer a breadth of choices and they have helped fuel the growth. So have crowded large cities where traffic takes a toll on you every time you venture out.

E-commerce further brings additional complexity of dealing with difficult scenarios like free delivery, order rescheduling, cancellation, returns and cash on delivery. The key to success in e-commerce is an efficient last-mile network and most ecommerce companies have moved on to take control of this critical area. This has not only helped the ecommerce companies deal with the difficult scenarios, but has also helped build customer confidence in reliability of the services.

India is a predominantly cash economy. Of 1.2 billion Indians, only 20 million have credit cards and approximately 40 million have an active Internet banking account. So even though the consumer is willing to make a purchase, lack of a credible payment instrument that is widely adopted has been a characteristic. The ecommerce companies came up with a nifty idea, "Cash on Delivery", to break through this barrier. And while it turned out to be a costly proposition, with high return rates, it did help build the

market and spread the service into far flung areas of the country, that were previously considered out of bounds for ecommerce.

CONCLUSION

In digital media, people to communicate around the world with others are being working under an operating system . In this world, the digital media will improve future generation. We need to manage ourselves those digital media may operate us in future. We spend hours in order to achieve goals without realizing.

REFERENCE

1. *https://www.businessinsider.com/ecommerce-in-digital-media-report-2018-11?IR*
2. *https://www.isttm.com/mba-digitalmarketing-course*
3. *https://www.proschoolonline.com/blog/digital-marketing-e-commerce*
4. *https://www.digitalvidya.com/blog/five-types-of-digital-marketing/*
5. *http://www.digitalmarket.asia/ecommerce-fighting-all-the-barriers-in-india/*
6. *https://neilpatel.com/blog/future-of-ecommerce/*
7. *http://www.klientsolutech.com/importance-of-ecommerce-in-our-daily-life/*
8. *https://www.wisdomjobs.com/e-university/e-commerce-concepts-tutorial-7/benefits*
9. *https://www.edx.org/course/fundamentals-of-digital-marketing*
10. *https://whatis.techtarget.com/definition/digitization*
11. *https://link.springer.com/article/10.1007/s12525-017-0282-1*
12. *https://www.simon-kucher.com/en/blog/digitalization-media-industry*
13. *http://www.nordicom.gu.se/sites/default/files/publikationer-hela-*
14. *pdf/ambivalence_towards_convergence.pdf*

15. .*http://culturedigitally.org/2014/09/digitalization-and-digitization/*
16. *https://link.springer.com/article/10.1007/s12525-017-0282-1*
17. *https://www.shopify.com/encyclopedia/what-is-ecommerce*
18. *https://www.shopify.com/encyclopedia/what-is-ecommerce*
19. *https://www.gartner.com/it-glossary/digital-commerce*
20. *https://www.digitalistmag.com/customer-experience/2017/02/03/digital-transformation-changing-future-of-e-commerce-04878883*

DIGITALALIZATION IN GREEN MARKETING

***KAVYA. R. SHASTRY**
(Student)
Mount Carmel College, (Autonomous)

ABSTRACT

Digitalization is the process of converting information into a digital form. The term digitization is often used when diverse forms of information, such as an object, text, sound, image or voice, are converted into a single binary code. Digital preservation can also apply to born-digital material. Many businesses are now transitioning online in a bid to streamline the management and day to day running of operations. Green marketing refers to the process of selling products or services based on their environmental benefits. Such a product or service may be environmentally friendly in itself or produced in an environmentally.

Keywords: *Green Marketing, Digital*

INTRODUCTION

Digitalization is the integration of digital technologies into everyday life by the digitization of everything that can be digitized. The literal meaning of digitalization gives an apparent idea of development and technology dependent world. Green marketing is the marketing of products that are presumed to be environmentally safe. It incorporates a broad range of activities, including product modification, changes to the production process, sustainable packaging, as well as modifying advertising. Green marketing is not a simple task where several meanings intersect and contradict each other; an example of this will be the existence of varying social, environmental and retail definitions attached to this term. Other similar terms used are environmental marketing and ecological marketing. It is also called eco-marketing or environmental marketing, and consumers recognize such brands by

terms like organic, eco-friendly, recyclable or sustainable. It is concerned with environmental issues more than ever. Air pollution, plastic in oceans, global warming, and food. In support of environmental health, millions have joined LOHAS (Lifestyles Of Health And Sustainability), heavily purchasing socially responsible products despite their higher cost. Digital methods of marketing is a proof that green marketing is catching on and soon it will become a norm.

OBJECTIVES

- To understand about Digitalization in Green Marketing in India.
- To know about Digitalization in Green Marketing in future generation.
- To study about green marketing in digital world

METHODOLOGY

Details and Information collected for the purpose of the study was collected from the secondary sources viz., websites, published articles, thesis and dissertation, journals, magazines etc.

DIGITALIZATION IN GREEN MARKETING IN INDIA

Green marketing have been expressed by manufacturers and customers about the environmental impact of products during recent decades. Consumers and manufacturers have directed their attention toward environment friendly products that are presumed to be "green" or environment friendly like low power consuming electrical appliances, organic foods, lead free paints, recyclable paper, and phosphate free detergents. Indian marketers are also realizing the importance of the Green Marketing Concept. Although a variety of research on green marketing has been conducted across the globe; little academic research on consumer perception and preferences has been carried out in India. This research provides a brief review of environmental issues and identifies the green values

of the consumers, their level of awareness about environmental issues, green products and practices. This paper highlights the consumers' perception and preferences towards green marketing practices and products with the help of a structured questionnaire. A study was conducted on 106 respondents. High level of awareness about green marketing practices and products was found among the consumers.

Green values were also found to be high among the respondents. Research has given good insights for marketers of the green products and suggests the need of designing the marketing communication campaigns promoting green products due to high green value among the consumers. Results of regression analysis reveals the view that overall green values, awareness about green products and practices and the perception regarding seriousness of marketing companies towards green marketing had positive significant impact on consumer persuasion to buy and prefer green products over conventional products.

Technology has shown a drastic impact on the environment and no doubt, it is increasing with every passing year and causing irreparable damage to the earth. Today in the era of advanced technology and fast moving life, where people do not even have enough time and space for themselves, the degree of concern for environmental issues.

The matter of concern is that though the advancement in the technology has made our life easier and comfortable, but on the other hand, it has shown a drastic detrimental impact on the environment. So for the purpose of diminishing this life-threatening impact, government and many communities are focusing on such practices that can prevent the future hazards. One of such practice is "Green Marketing**".**

Some of the business has shown their keen interest to accept the concept of environmental management and waste minimization. Basically, Green Marketing is a business practice that

takes into account customer concern, about promoting preservation and conservation of the natural environment.

While practicing Green marketing, business firms are not only concentrated on promoting the products which are environmentally safe but, also they have incorporated changes in the production process, advertisement and packaging. So fundamentally the business firm focuses on optimally utilizing the available resources while accomplishing the organizational goal and customer satisfaction.

Green marketing is important for a number of reasons, from eliminating wastefulness to educating consumers about how a company is maintaining eco-friendly measures. Here are some other objectives to consider when thinking about green marketing.

Biodegradable product packaging cutting down on water consumption, or reducing the amount of trash that goes into landfills, green marketing is just as concerned with avoiding waste as putting forward an eco-friendly face to the public.

Reinventing products: Products themselves can be modified to lessen the impact on the environment. For example, Method sources its ingredients from many plant-derived ingredients, which means it's safer for humans, not toxic to family pets who might accidentally ingest it; and more environmentally-friendly by being water-soluble and dispersing safely into the environment.

Making green while being green: Of course, companies that promote green products want to not only be good stewards of planet Earth, but make a profit while doing so. Green marketing allows businesses to capitalize on the subset of the population willing to pay a little more to lessen their footprint on the environment and protect the atmosphere.

Consumers aren't the only ones that need to be concerned with environmental impact. Green marketing also encourages businesses to properly utilize resources such as water consumption and electricity. Changing processes also means looking for

renewable materials, using alternative energy sources and finding ways to deliver products in a more fuel-efficient manner.

Creating eco-friendly messaging: Green marketing's biggest "marketing" accomplishment might be in messaging. Green marketing works to help consumers understand a product's green benefits and a company's commitment to the environment. It's also an important avenue in which to educate people about sustainability and the environment.

Access to new markets: It's no secret that people who prefer to buy green do so almost exclusively. If you haven't had green products before, they've had no reason to shop with you. Offering green alternatives opens your product line up to eco-friendly consumers. It may also create new opportunities with federal agencies or other businesses that look for green vendors to do business with.

If you're looking for an edge against your competitors, offer the same great quality product with the added feature of environmental friendliness. Consumers who buy green products do so because of the added benefit of being eco-conscious, even if the products are priced slightly higher. Marketing means meeting needs profitably. But in today's global world the scenario has been changed from organization.

The concept of sustainability is almost ubiquitous by showing application in corporate strategy, consumer choice, student education and academic research. The need for sustainable business practices by corporations around the world is identified to be a result of overall increase in the consumer awareness of lack of environmental protection and social inequities. Over the last decade environmentalism has emerged to be a vital aspect due to increasing issues related to acid rains, depletion of the ozone layer, and degradation of the land and many more pressing environmental issues. This resulted in increase in consumer concern with regards to restoration of ecological balance by presenting demands for ecofriendly products in countries around the world .The growth of

green marketing research dates back to 1980s when there was emergence of concept of green marketing. Early literature indicates green marketing to be an approach which indicated signs of shift in consumer attention to green product. At that time green marketing research concentrated on the shift in consumer consumption of green products. There was a great deal of empirical research carried out to identify interest among consumers in using and purchasing green products .Many people believe that green marketing refers solely to the promotion of products with environment characteristics. "All activities designed to generate and facilitate any exchange intended to satisfy human needs or wants such that satisfying of their needs and wants occur with minimal detrimental input on the national environment".

As the human needs are unlimited and on the other hand the natural resources are limited. So it's important for a company to utilize these naturally available resources effectively. Consumers now days are becoming more environments friendly. As a result of this, Green marketing has emerged which speaks for the growing market for sustainable and socially responsible product.

Green marketing becomes a priority. Yes, even with the noblest of causes, there are sometimes two sides of the coin that should be considered. And with this in mind, we thought it would be best to write about the green marketing advantages and disadvantages. Being green or sustainable encompasses many elements; energy efficiency, the use of clean/renewable energy, water conservation, recycling and waste management, eco-friendly apparel, organic produce, sustainable farming and much more. The key to a successful green marketing strategy is to communicate authentic and concrete facts about a company's engagement toward social and environmental causes.

When a business shines light on the positive impacts their product or service brings about they have the possibility of piercing new target markets. For example, residents that never considered the

idea of using solar power might switch to solar panels if the information is clear, concise and targets their needs.

Green marketing advantages can also include highlighting sustainable manufacturing practices, the use of eco-friendly and organic products within the work office, composting and recycling at work, and carpooling to go to work. Every company has a possibility to shed light on its efforts, which is why green marketing has great advantages to reach and educate new markets. They are willing to pay more for products and services seen as sustainable or with a positive social impact. Customers are reassured when their products are chemical-free and made with recyclable materials that do not harm the environment.

Green marketing and awareness campaigns help customers to make informed choices potentially contributing to environmental causes. This is a major asset, as conscious customers pay attention to the products they purchase and use, and therefore will become more active in voicing your product, leading to an increase in sales. Changing your marketing tactics takes time and the development of a new strategy, which typically translates into increased costs. While your sustainable efforts and practices are designed to save money, when a company puts effort into changing their brand to be more environmentally friendly, those changes can have expensive upfront costs. As green marketing brings so many advantages to a business, a lot of big companies try to look "greener" and the majority of it is just green washing. This means a company will make something not sustainable look green by putting all of the attention on a little detail.

A large number of firms are practicing green marketing, it is not an easy job as there are a number of problems which need to be addressed while implementing Green marketing. The major challenges which Green marketing has to be faced are: Concept-Indian literate and urban consumer is getting more aware about the meritsof Green products. But it is still a new concept for the masses. The consumer needs to be educated and made aware of the

environmental threats. The new green movements need to reach the masses and that will take a lot of time and effort..Cost Factor-Green marketing involves marketing of green products/services, green technology, green power/energy for which a lot of money has to be spent on R&D programs for their development and subsequent promotional programs which ultimately may lead to increased costs. Convincing customers-The customers may not believe in the firm's strategy of Green marketing, the firm therefore should ensure that they undertake all possible measures to convince the customer about their green product, the best possible option is by implementing Eco-labeling schemes. Sometimes the customers may also not be willing to pay the extra price for the products. Sustainability-Initially the profits are very low since renewable and recyclable product sand green technologies are more expensive. Green marketing will be successful only in long run. Hence the business needs to plan for long term rather than short term strategy and prepare for the same, at the same time it should avoid falling into lure of unethical practices to make profits in short term. Non Cooperation-The firms practicing Green marketing have to strive hard in convincing the stakeholders and many a times it may fail to convince them about the long term benefits of Green marketing as compared to short term expenses. Avoiding Green Myopia-Green marketing must satisfy two objectives: improved environmental quality and customer satisfaction. Misjudging either or overemphasizing the former at the expense of the latter can be termed green marketing myopia.

GREEN MARKETING IN DIGITAL WORLD

The world of marketing has been evolving ever since the advent of technology. In fact, technology has ushered in a new era for consumers as well. Consumers have all the information they need just a click away. However, it would be wrong to say that the role of a marketer has diminished as a result. The role of the marketer has merely evolved in the process. That means that the

traditional methods of marketing that were part and parcel of marketers for such a long time has become obsolete. It has paved way for more modern and sophisticated methods of digital marketing. Earlier on, marketers had to rely on large quantities of printed material. One had to depend on printed material for in-house communications, exchanging information amongst departments, storing information on new leads and customers, you name it. Everything had to be done in paper, whether written or printed. And this would be done on a large scale across the world with files and files of information tucked away, not only occupying space but also using large quantities of paper, product sourced directly from trees.

Not only that, traditional marketing methods relied on large quantities of printed material for customer communication as well. Everything from flyers and brochures for trade shows to direct mails consumed an enormous amount of paper as well as ink. With cutting-edge digital marketing technology, there is no need for either paper or ink. Software takes care of everything from communication to promotion. One such extremely popular piece of marketing technology is marketing automation.

Marketing automation is software that takes care of your day-to-day marketing needs. Since traditional methods of marketing do not work anymore, it has all come down to emails, social media channels, videos, blogs and newsletters when it comes to communication and promotion. Marketing automation is a green solution because it consumes no paper or ink. It stores all relevant information in the cloud servers instead of paper-files in file cabinets. It helps you conduct trade shows online, where people all over the world can drop by to check out your products. Digitalization and sustainability are two of the most powerful market influences in today's corporate landscape. Each has spawned a massive amount of research about how it will change management practice, and more broadly, business and society. The intersection of these trends, however, remains largely unexplored territory.

The digital revolution touches all aspects of our human and physical world in many varied and constantly changing ways. Whether you wish to read the news, comment on line, watch a film, or buy insurance. We are highly connected through data and this connection has the capacity to empower citizens and enrich our lives. It is easy to take for granted this digital ecosystem and it is hard to imagine a time before it. Yet as an industry it is in its infancy when compared to printing or manufacture. And this is very clear when one starts to investigate the ethical and environmental impacts of digital. The industrial revolution took huge strides in advancing humanity, but it never intended to pollute our rivers or air.

Green marketing is the marketing of products that are presumed to be environmentally safe. Digitalization is the process of converting information into a digital form. The term digitization is often used when diverse forms of information, such as an object, text, sound, image or voice, are converted into a single binary code. Digitization, less commonly digitalization, is the process of converting information into a digital. format, in which the information is organized into bits. The result is the representation of an object, image, sound, document or signal by generating a series of numbers that describe a discrete set of its points or samples. The result is called *digital* representation or, more specifically, a digital image, for the object, and digital form, for the signal. In modern practice, the digitized data is in the form of binary number, which facilitate computer processing and other operations, but, strictly speaking, digitizing simply means the conversion of analog source material into a numerical format; the decimal or any other number system that can be use instead.

Green marketing involves more than simply presenting an environmentally friendly product. It also speaks to, and actively promotes, a company's processes and business practices as having low environmental impacts. Green marketing is the marketing of products that are presumed to be environmentally preferable to others. Thus green marketing incorporates a broad range of

activities, including product modification, changes to the production process, sustainable packaging, as well as modifying advertising. Yet defining green marketing is not a simple task where several meanings intersect and contradict each other; an example of this will be the existence of varying social, environmental and retail definitions attached to this term. Other similar terms used are environmental marketing and ecological marketing. Terms like "Green Marketing" and "Environmental Marketing" appear frequently in the popular press. Many governments around the world have become so concerned about green marketing activities that they have attempted to regulate them. For example, in the United States (US) the Federal Trade Commission and the National Association of Attorneys-General have developed extensive documents examining green marketing issues. One of the biggest problems with the green marketing area is that there has been little attempt to academically examine environmental or green marketing. Green environmental and eco-marketing are part of the new marketing approaches which do not just refocus, adjust or enhance existing marketing thinking and practice, but seek to challenge those approaches and provide a substantially different perspective. In more detail green, environmental and eco-marketing belong to the group of approaches which seek to address the lack of fit between marketing as it is currently practiced and the ecological and social realities of the wider marketing environment

Terms like Phosphate Free, Recyclable, Refillable, Ozone Friendly, and Environmentally Friendly are some of the things consumers most often associate with green marketing. While these terms are green marketing claims, in general green marketing is a much broader concept, one that can be applied to consumer goods, industrial goods and even services. For example, around the world there are resorts that are beginning to promote themselves as "eco tourist" facilities, i.e., facilities that "specialize" in experiencing nature or operating in a fashion that minimizes their environmental impact. Thus green marketing incorporates a broad range of

activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising. Yet defining green marketing is not a simple task. Indeed the terminology used in this area has varied, it includes: Green Marketing, Environmental Marketing and Ecological Marketing. While green marketing came into prominence in the late 1980s and early 1990s, it was first discussed much earlier.

CONCLUSION

Consumers are interested in natural resources so that green marketing is becoming more important for enterprises. Producers show to consumers that they are interested in the same and they emphasize the trustworthiness of environmentally friendly products. Consumers are taking control of their own marketing destinies, creating their own experiences. They are becoming their own brand managers and changing the way marketers go about marketing. Toyota is one of the good examples of green marketing success. Where the consumer needs, profitability and environmental preservation meet each other in a product. Toyota has proven that they are truthful about what they produce and they eventually become a benchmark for other firms.

REFERENCES

1. *https://www.iuemag.com/august2016/sf/green-marketing-in-india.php*
2. *https://escholarship.org/uc/item/5mc39217*
3. *https://study.com/academy/lesson/why-is-green-marketing-important-objectives*
4. *https://www.researchgate.net/publication/299476417_*
5. *http://www.informit.com/articles/article.aspx?p=2473482&seq*
6. *https://en.wikipedia.org/wiki/Green_marketing*
7. *https://en.wikipedia.org/wiki/Digitization*
8. *https://www.esanosys.com/blog/miscellaneous/green-marketing-future-marketing/*

9. *https://sloanreview.mit.edu/article/the-convergence-of-digitalization-and-sustainability/*
10. *https://www.theguardian.com/global/blog/2015/nov/13/digital-revolution-environmental-sustainable*
11. *http://cbsmohali.org/img/Journal_1-54-58.pdf*
12. *https://study.com/academy/lesson/why-is-green-marketing-important-objectives-benefits.html*
13. *https://www.omicsonline.org/open-access/effects-of-green-marketing-strategy-on-the-financial-and-nonfinancialperformance-of-firms-a-conceptual-paper-2223-5833-1000254.php?aid=80204*
14. *https://revive.digital/blog/green-marketing-and-branding/*
15. *https://en.wikipedia.org/wiki/Digitization*
16. *https://www.comparethecloud.net/articles/business-digitalisation/*
17. *https://www.esanosys.com/?utm_source=blog%20Is%20Green%20Marketing%20the%20Future%20of%20Marketing%3F&utm_medium=banner&utm_content=content*
18. *https://www.researchgate.net/post/What_is_digitalization2*
19. *https://en.wikipedia.org/wiki/Digitization*
20. *https://www.sas.com/en_za/insights/marketing/digital-marketing.html*
21. *https://study.com/academy/lesson/why-is-green-marketing-important-objectives-benefits.html*
22. *https://www.omicsonline.org/open-access/effects-of-green-marketing-strategy-on-the-financial-and-nonfinancialperformance-of-firms-a-conceptual-paper-2223-5833-1000254.php?aid=80204*
23. *https://revive.digital/blog/green-marketing-and-branding/*
24. *https://learn.g2crowd.com/green-marketing*
25. *https://www.thebalancesmb.com/green-marketing-2948347*
26. *https://www.scribd.com/doc/89026646/Green-Products-and-Its-Characteristics.*

27. *https://smallbusiness.chron.com/benefits-green-marketing-68744.html*
28. *http://www.yourarticlelibrary.com/marketing/green-marketing-meaning-and-importance-of-g*
29. *https://www.scribd.com/document/306139648/*
30. *https://lautrecouleur.com/green-marketing-advantages-disadvantages/http://iosrjournals.org/iosr-jbm/papers/ncvbm/volume-1/6.pdf*

GST-A DIGITAL TAXATION METHODIN INDIA IS THE BIGGEST CHALLENGE IN THE CENTRE- STATE FISCAL RELATIONSHIP- A LEGAL PERSPECTIVE

***J. HEMA LATHA**
Research Scholar
(Department Of Law)
University of Madras, Chennai

ABSTRACT

India has a federal form of government with one at the Centre and the other in the states. In India the Centre-state relationship is relatively healthy and the power is clearly explained as to what comes under the state and what comes under the Centre. In our federal system both Centre and States have power to impose tax which is clearly mentioned in the union list and state list under 7th schedule. According to SatyaPoddar, partner, Ernst & Young, explained that: "There may not be substantial hurdles in the passing of the Bill, assuming there will be a consensus on the broad design of GST. The Constitution was drafted more than 50 years ago when the state of the economy and taxation was different. Revisions should be made to the Constitution, compatible with modern reality. Before the implementation of GST the Centre and state were independent on the tax collections. India does not have a unified national market since 2017 after implementation of will be one of the first step towards formation of unified market based on "one nation, one Aspiration, One Determination." GST stands for "Goods and Services Tax", and is proposed to be a comprehensive indirect tax levied on manufacture, sale and consumption of goods as well as services at the national level. Implementation of GST will be a big challenge is that so far Centre used to levy it tax and the state used to levy its tax .After the enforcement of GST bill is clearly

example for cooperative federalism where state and state have merge their power to collect tax termed as single tax system. This paper analysis of what the impact of Goods and Service Tax or GST is all set to be a game changer for the relationship between the Centre and the state.

Keywords: *GST, A Digital Taxation, Method in India, Legal Perspective*

INTRODUCTION

The Indian Constitution has extended the provisions related to the distribution of revenues between the Union and the States under Article 268 to 293 in Part XII of the constitution deal about the financial relations. Therefore there was a clear understanding between the relationship of the state and Centre under Indian taxing system. The Goods and Services Tax or GST was implemented across the country on 1 July 2017.The waiting period is over on 8th September 2016 with the consent of the President to the Constitution (101stAmendment) Act 2016. The successful passing of the amendment has cemented the ways for introduction of the GST in the country. It would instantly enable the Union to exact expense on the offer of merchandise which has been in the space of the states, and the states correspondingly would have the capacity to demand assess on administrations which as of recently was generally in the area of the Union government. The GST subsumes majority of the indirect taxes – excise, service, sales tax, octroi, etc – to create 'One Nation, One Market' and it will be an economic integration of India. Goods and Services Tax (GST) will be a comprehensive indirect tax on manufacture, sale, as well as consumption of goods and services throughout the country, it will replace taxes collected by Central and state governments.

The adoption of the GST regime would require amendments in the Constitution so as to concurrently empower the Centre and the States to levy and collect the GST.Concurrent

jurisdiction to the Centre and the States for the collection of GST would acquire an institutional mechanism that would help to formulate the decisions of the framework, structure, design and operation of GST. There is a positive and negative impact in GST, the positive is sovereignty will be shared between the Centre and states and negative is, the dual GST is considerably different from the present indirect tax regime, a massive training initiative would be required at both federal and State levels to familiarize the respective administrations with the concepts and procedures of the dual GST

DIGITALIZATION OF GOODS AND SERVICES TAX (GST) AND ITS IMPACT IN CENTRE-STATE RELATIONS IN INDIA

GST in India is considered as to be a destination based taxing system. It has removed service tax, central excise, VAT and other taxes levied locally and by state governments. The introduction of GST can ease the current system of taxation system in India. The complexity of levying on different levels in administration can be made easier by a single arrangement. Moreover it can defeat the negative impacts of current system of taxation in India. Therefore it becomes essential to restructure the business and location depending upon the assessment of implication of GST on each type of transactions. The impact analysis and planning for restructuring can be done only based on the GST Act, 2017. GST should thus rationalize tax content in product price, enhance the ability of companies to compete globally, and possibly trickle down to benefit the ultimate consumer.

In May 2014, the NarendraModi-led Government came to power at the Centre, we can notice a phenomenal changes in the federal relations between the Centre and States. The change is seen in all the important aspects of the relations like - the division of expenditure responsibilities, fiscal assignments and intergovernmental transfer arrangements and seeks to grant more

financial autonomy to the States. To accelerate the change further, new institutions like NITI Aayog was set up and the GST Council was formed, it is formulated to understand some of the key measures to sort out problems in fiscal federal relations. Based on thatthe GST Council [Art. 279 (1)] was formed a constitutional body involving the Centre and the States. Since the council decides the CGST and SGST rates, it ensures that the States are significant decision partners in nation-level macro-economic engagement. Previously, in the pre-GST regime, States were not involved in deciding the taxes that fall under the Centre's purview. However, on the other side, States have lost the autonomy in deciding the tax rates of subjects that fall under the State list. Previously, State Governments used to fix tax rates by taking into spending requirements, revenue base, etc. The inability of States to fix tax rates to match their development requirements will result in higher dependence on the Centre for funds. In order to compensate this the Central Government of India has promised state to compensate for revenue losses that they incur from the date of GST introduction till a period of five years.

CONSTITUTIONAL ASPECTS OF FISCAL RELATIONSHIP BETWEEN THE CENTRE AND THE STATES

Currently, fiscal relationship between the Centre and the States are clearly defined accordingly in the Constitution without overlap between the respective domains. The GST in India is a best example for cooperative federalism. In our cooperative federalism both the Centre and states have power to impose tax, this power clearly defined in the 7^{th} schedule of the union and state list. In the GST framework, both the Centre and states have power to collect taxes. In the federal structure, the Union and the states will levy the GST at each point of time in the taxation of goods and services, with the Union levying a central goods and services tax ("CGST") and the states levying a state goods and services tax ("SGST").

The constitution one hundred and one (amendment) acts, 2016 changes the taxing system and giving power to both the Centre and state to make law to GST. Introduction of GST would require amendments in the Constitution so as to concurrently empower the Centre and the States to levy and collect the GST. The assignment of concurrent jurisdiction to the Centre and the States for the levy of GST would be a unique institutional mechanism that would ensure that strengthening fiscal structure. Under the GST regime the decisions about the structure, design and operation of GST are taken jointly by the Centre and state. For it to be more effective, GST mechanism also needs to have additional Constitutional force.

Centre taxes that would be subsumed under the GST are, Centre excise duty, Duties of Excise (medicine and Toilet preparations), Additional Duties of Exercise (Goods of Special Importance), Additional Duties of Customs (commonly known as CVD), Special Additional duty of Customs (SAD), service tax and surcharges. State taxes that would be subsumed under GST are State VAT, central sales Tax, Luxury tax, Entry tax, Entertainment and Amusement tax, Taxes on Advertisement (purchase Tax), Taxes on lotteries, betting and gambling and state surcharges.

The Bill also proposes an amendment to Article 286 of the Constitution to ensure that the supply of goods and services continues to remain outside the purview of the states' power to tax if such supply takes place outside the state or in the course of import of goods into India or the export of goods outside India. However, this amendment is merely clarificatory. The substance and the intention of the provision continue to remain the same. Equally important is the amendment proposed to Article 248. The exclusive power of the Parliament to make any law with respect to any matter not enumerated in the Concurrent List or the State List in Schedule VII, including the imposition of tax on such matters, will now be subject to Article 246A. This essentially means that any new matters involving goods or services, including their taxes, will necessarily have to be routed by the Union through the mechanism of the GST;

and thereby necessarily enabling the states to tax such matters as well.

Additionally, Article 246A(2) empowers the Parliament with the exclusive power to make laws with respect to goods and services tax where the supply of goods, or of services, or both takes place in the course of inter-state trade or commerce. This tax is called the integrated goods and services tax ("IGST"). Hence, every point in taxation will necessarily be subject to CGST, and either SGST or IGST, depending on whether the movement of goods or supply of services involves intra-state or inter-state trade or commerce. Under the proposed Article 269A, the IGST should be levied and collected by the Union but be apportioned between the Union and the States.

GST COUNCIL

The implementation of the GST Bill is paved the way for creation of the GST Council which will be supra-federal statutory body under the under Article 279A of the Constitution. The surveillance of the system is proposed to be conducted by the GST Council which will be the apex body for policy making consisting of state and central minister with finance as background, the GST Council is intended to be a powerful body consist of Union Finance Minister, the Union Minister of State for Finance, and the State Finance Minister of each state government to formulate principles and make recommendations on the following aspects of the GST:

(a) The rates of GST, entities to be taxed

(b) The goods and services that may be subjected to, or exempted from GST;

(c) Model goods and services tax laws for adoption by the Union and the states and principles for the levy and apportionment of IGST;

(d) The threshold limit of turnover below which goods and services may be exempted from GST; (e) Special provisions with respect

to the North Eastern States, Jammu and Kashmir, Himachal Pradesh and Uttarakhand; and

(f) Any other matter relating to GST, as the GST Council may decide.

CONCLUSION

The introduction of GST of a single point it removes the cascading effect of taxes and also simplify the number of taxes that are levied on a transaction involving goods or services and also soothe the current system of taxation system in India. The complexity of levying taxes on different levels in administration can be made easier by a single arrangement. This system can be more transparent which can unlock the crucial obstacle of tax evasion. It can be argued that this move from the Government can bring down the economy of the states individually. While the preceding scheme of the Central Excise Act, 1944 and the Finance Act, 1994 provided for the removal of the cascading effect of taxes in respect of certain central indirect taxes, and the VAT system introduced in states provided for the removal of the cascading effect in respect of tax on the sale of goods, the GST will be the first time that the cascading effect will stand removed in respect of both central and state indirect taxes. from the view point of consumer as well as Government, this can be a major boon for a developing country like India .The GST, therefore, can be seen as a giant step for having an indirect tax system that seeks to capture only the value addition in the goods and services at each level, and not capture the taxes being levied at each level for the purposes of further taxation.

REFERENCES

1. *J.Hemalatha (Author) Research Scholar, Department Of Legal Studies, University Of Madras, Chepauk, Chennai*
2. *An Insight of Goods & Services Tax (Gst) In India, (2015) The Institute Of Cost Accountant Of India.*

3. *https://www.jagranjosh.com/Current-Affairs/Fiscal-Federalism-In-India-Recent-Measures-Impact-1509694844-1*
4. *https://www.business-standard.com/Article/Economy-Policy/Centre-State-Financial-Ties-To-Change-With-Gst-109112500080_1.Html*
5. *http://ijariie.com/Adminuploadpdf/Gst_Model_With_Reference_To_Central_State_Relations_In_Financial_Terms_Ijariie5147.Pdf*
6. *Model GST Law, (2016) Empowered Committee of State Finance Ministers.*

ROLE OF SMART PHONE APPLICATIONS IN MOBILE BANKING

***KRISHNA KUMAR R**
Research Scholar in Commerce,
Manonmaniam Sundaranar University,
Tirunelveli – 627012.

****Dr. M. P. ASHA KUMARI**
Head, Associate Professor and Supervisor,
PG and Research Department of Commerce,
Muslim Arts College, Thiruvithancode,
K.K District, Tamil Nadu – 629174.

ABSTRACT

Banking is becoming more and more technology savvy industry largely due to mobile technologies. It is a fact that internet banking has given a boost and has shown a successful way to consider it as a good alternative procedure against 'brick and mortar banking'. Mobile Banking is a subset of banking as it allows everyone easy access to their banking activities via mobile handsets. The data used for this study was collected from various secondary sources. As the emergence of mobile banking is rising with its more advantageous in daily life to make fast settlement of banking transactions with the 'anytime and anywhere banking system'. This paper concluded that mobile banking apps are rapidly becoming the channel of banker-customer relationships

Keywords: *Smart Phone, Mobile banking, Electronic banking, Mobile Communication Technology (MCT)*

INTRODUCTION

Indian banking industry has recently witnessed the roll out of innovative banking models like digital payments and small

finance banks. The digital payment system in India has evolved the most among 25 countries with India's Immediate Payment Service (IMPS) being the only system at level 5 in the Faster Payment Innovation Index (FPII). Banking is becoming more and more technology savvy industry largely due to mobile technologies. According to Reserve Bank of India, India's banking sector is sufficiently capitalized and well monitored. The financial and economic conditions in the country are far eminent to any other country in the world. Credit, Market and Liquidity Risk studies shows that Indian banks are generally strong and have thwart downturn well. The Smartphone has become fully integrated into our lives, including banking. Banking industry has undergone radical change as a consequence of the tremendous developments in this digital era. Banks have changed from paper-based banking services to the latest technologies like electronic banking, mobile banking etc. Also to facilitate to the ever increasing consumer needs and demand, the banking industry has these technologies to offer banking solutions at the convenience and comfort to its customers. Mobile banking is a natural inheritor to electronic commerce.

After internet banking, mobile banking or M-Banking has become a major 'buzz word' in the banking industry. It is a fact that internet banking has given a boost and has shown a successful way to consider it as a good alternative procedure against 'brick and mortar banking'. Nowadays wherever you are, you can access your bank account and you can do a lot of other banking transactions such as balance enquiry, fund transfer, payment of utility bills online and so on just by one click. But one of the most important demerits of internet banking is that you must have an internet connection and a Personal Computer (PC) to access banking services. While considering the developing countries like India, it is a big hindrance of internet banking. As a solution to this problem, we can use mobile banking to address the basic limitation of internet banking. If we only consider India, the availability of mobile connectivity is huge.

The latest forecast about Smartphone users in India shows that the number of Smartphone users in India is 337 million by the end of 2018. The number of Smartphone users in India would reach 490.9 million by 2022. Between 2017 and 2022, the number of Smartphone users in India will grow over 60%. No one may not find without a Smartphone by the end of 2030. So mobile banking has given the traditional banking, a newer look "Anywhere Banking". Now you don't need a Personal Computer or Laptop with internet, you just need your Smartphone with you. While considering the Asian countries like China, India and Japan have seen the mobile phone boom in last one decade. As per the data released by the TRAI, India had 1.012 billion active mobile connections in January 2018. On the basis of this report, we can say that about 76.67% people in India have mobile connectivity. According to RBI's Annual Report for 2017-18, mobile banking services witnessed a growth of 92% and 13% in volume and value terms respectively.

OBJECTIVES OF THE STUDY

- To examine the recent trends and developments in Indian Mobile Banking
- To present Smartphone Applications used in Mobile Banking
- To study the emerging trends in Indian Mobile Banking

REVIEW OF LITERATURE

The term Smartphone is a combination of two words namely, smart and telephone. Smart phones are a category of mobile phones and multipurpose mobile computing devices. They are unique from other phones by their stronger hardware capabilities and extensive mobile operating system which provide wider software, internet and multimedia functions along with core phone functions such as voice calls and text messaging. For the initial years of past decade, symbian phones dominated the global smart phone market with 67% market share in 2006. Around the same

period, two new players came into market and changed the world of smart phones. Google unveiled its Android Operating System and Apple Inc. unveiled iOS through iPhone. Android is a open source software stack for a wide range of mobile devices and a corresponding open source project led by Google [Google, 2015] and has dominated the smart phone Operating System (OS) market with 78% market share [International Data Corporation, 2015]. On the other hand iOS is a mobile operating system developed for the solely for use by iPhone and iPad devices by Apple Inc. The first commercially available phone using Android was HTC Dream in 2008. While the first Apple Phone running iOS was released in 2007. The abbreviated form of Application is "App". An application is a software program that is designed to perform specific functions directly for the user of smart phones or for another application program. The development of mobile apps also been well covered in mobile banking and other electronic banking services. These apps have focused on delivery of information resources to handheld devices or communication of financial information about banking and other financial services.

Mobile Banking is a rebellion that is driven by the globe's one of the fastest growing sectors Mobile Communication Technology (MCT). Mobile Banking is defined as an interaction which a consumer is connected to a bank through a mobile device such as Cell Phone, Personal Digital Assistant (PDA) or Smartphone [Laukkanen T, Kiviniemi V, 2010]. Mobile Banking is a subset of banking as it allows everyone easy access to their banking activities via mobile handsets. According to Palani et.al, mobile banking in India is in growth approximately 43 million urban Indians used their mobile phones to access banking services during quarter ending August 2009, a reach of 15% among urban Indian mobile phone user. Mobile Banking can also consider as the convergence of mobile technology and financial services. Technology providers and financial institutions believe that m-payment will reach critical mass in the next few years. Wireless Application Protocol (WAP) banking

is another form of electronic banking that enables the user to communicate interactively with the bank [Barnes, 2002]. For this kind of communication, the client uses only GSM mobile phone with WAP services. Mobile banking transaction is economical compared to the traditional banking channels and hence there is need for banks to encourage the mobile banking channel in a big way keeping in mind the long term economic gains [Technical Committee Report, RBI, 2014].

The first bank to provide mobile banking facilities in India was ICICI Bank in the year 1999 followed by HDFC and IDBI Bank. So the first mobile banking and mobile payment initiatives were announced in 1999. The terms M-Banking, M-Finance, M-Transfers and M-Payments refers to inter-services between customers and bankers. Through mobile banking, the bankers can provide 24X7 facilities and they will benefit further from reduced administrative costs, lesser number of branches and lower handling charges with better services to customers than branch banking. However around the world, various Information Technology initiatives developed by bankers and use of mobile phones to provide banking services without traditional banks. Therefore the Government of India and Reserve Bank of India encourages banks to provide banking services through mobile banking facilities. Reserve Bank of India issued mobile banking guidelines in the year 2008 to disqualifies mobile network operators from offering their own services.

SMARTPHONE APPLICATIONS IN MOBILE BANKING

In addition to financial institution's mobile banking applications, there are a number of mobile payment applications are used in India. Some of among them are:

1. **United Payment Interface (UPI)**

   UPI is an instant real-time payment system developed by National Payments Corporation of India facilitating inter-bank transactions. The interface is regulated by

the Reserve Bank of India and works by instantly transferring funds between two bank accounts on a mobile platform. Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the "Peer to Peer" collect request which can be scheduled and paid as per requirement and convenience.

2. **Bharat Interface for Money (BHIM)**

BHIM is a payment app that lets you make simple, easy and quick transactions using Unified Payments Interface (UPI). We can make direct bank payments to anyone on UPI using their UPI ID or scanning their QR with the BHIM app.

3. **PayTM**

PayTM is one of the largest mobile commerce platforms in India, offering its customers a digital wallet to store money and make quick payments. It is launched in 2010, PayTM works on a semi-closed model and has a mobile market, where a customer can load money and make payments to merchants who have operational tie-ups with the company. Apart from making e-commerce transactions, PayTM wallet can also be used to make bill payments, transfer money and avail services from merchants from travel, entertainment and retail industry.

4. **Momoe**

Momoe is a Bengaluru based mobile payments startup that focuses on changing how customers pay while eating out, travel and shop. Using the Momoe app, one can store their credit card details and make mobile payments at various restaurants, grocery stores, apparel, salons and other retail outlets. The app's initial foray was into restaurants which attracted many installs due to the ease of

payment options. The users were able to see live tabs, split bills and pay directly, without having to wait for a physical bill to arrive. Even though its services are currently available only in Bangalore, due to the growing popularity of the app and investment funds they will soon be expanding their services to six new cities.

5. **PayUMoney**

PayUMoney, a Gurgaon-based company that provides online payment solutions launched its wallet service last year. This e-wallet by PayUMoney enables the user to store cash and pay for various services and transactions. In order to differentiate themselves from other players, they provide a wide range of benefits that include one-touch check out and discounts / cash back offers on every transaction made. This e-wallet also provides instant refunds on order cancellations and buyer protect to ensure the right purchase and customer satisfaction.

6. **MobiKwik**

MobiKwik is an independent mobile payment network that supposedly connects 25 million users with 50,000 retailers and more. This mobile wallet lets its users add money using debit, credit card, net banking and even doorstep cash collection service, which can in turn be used to recharge, pay utility bills and shop at marketplaces. Owing to the growing need for convenience, MobiKwik has also recently tied up with large and small time grocery, restaurants and other offline merchants.

7. **Google Pay**

Google Pay is a digital wallet platform and online payment system developed by Google to power in-app and tap-to-pay purchases on mobile devices, enabling users to make payments with Android phones, tablets or watches. As of January 8, 2018, the old Android Pay and Google

Wallet have unified into a single pay system called Google Pay.

CONCLUSION AND SUGGESTIONS

The mobile banking apps aren't replacing a brick and mortar branch. Instead, it is enhancing the customers' experience. With a mobile banking app customers will have to access their branch in a few taps on their smart phones. Now banks can be with them anywhere they go. Apart from using smart phones directly in banking, customers can also be used as bank locators using Global Positioning System (GPS) where one just feeds in the details of the banks they are looking for, and they get to it or its ATMs. So banks are going to new lengths to attract and retain customers with smart phone features. It is widely accepted that mobile banking apps are rapidly becoming the channel of banker-customer relationships. By 2022, the average customer is expected to visit a branch only four times in a year, turning instead to online and particularly mobile banking. With this trend banks are finally starting to recognize the importance of delivering enhanced functionality above that of basic balance and transaction history, enabling the customers to fully service their accounts through their smart phones.

As the emergence of mobile banking is rising with its more advantageous in daily life to make fast settlement of banking transactions with the 'anytime and anywhere banking system', there are some issues which lead some hindrances in its development. Many academicians, authors and researchers made attempt to study on implementation of mobile banking by customers in India, they concluded that most of the customers raise the issue of cyber security with mobile banking apps. Banks find themselves having to protect the customer, while at the same time providing uninterrupted and faster access to their services to assure higher customer satisfaction. Face recognition apps and fingerprint scanning are the best ways to boost the security of mobile banking. Reserve Bank of

India issued some guidelines to increase security on mobile banking. They are

a. To facilitate the mobile banking mPIN (Mobile Personal Identification Number) may be issued and authenticated by the bank.
b. Implement application level encryption over network and transport layer encryption wherever possible.
c. Establish proper Firewalls, Intruder Detection System (IDS) and Surveillance and Incident Response Procedure.
d. Only banks which are licensed and supervised in India will be permitted to offer mobile banking services.
e. Conduct timely Risk Management Analysis at least once in a year.

Apart from these guidelines from this study we can suggest that banks should understand that eventually everyone will have access to their accounts through mobile device of some sort. So the infrastructure is totally in place for banking institutions to reach consumers through this channel. A mobile banking app should be treated like a branch that can fit in someone's pocket. Above all else, the mobile apps must be reliable.

REFERENCES

1. *Barnes S J (2002), Provision of Services via Wireless Application Protocol: A Strategic Perspective, Electronic Market, Vol. 12, No. 1, pp. 1-8*
2. *Chung N, Kwon SJ (2009), The Effect of Customers' Mobile Experience Technical Support on the Intention to Use Mobile Banking, Cyber psychology and behavior 12: 539-543*
3. *Laukkanen T, Kiviniemi V (2010), The Role of Information in Mobile Banking Resistance, International Journal of Bank Marketing 28: 372-388*
4. *Palani A, Yesodha (2012), A Study on Customer Perception Towards Mobile Banking in Indian Overseas Bank, Chennai. IJMT 2: 2249-1058*

5. *Reserve Bank of India (2014), Mobile Banking Report of the Technical Committee accessible at www.mpf.org.in/pdf/RBI%20Technical%20Committee%20Report.pdf*

A THEORETICAL STUDY ON DIGITAL INDIA-CHALLENGES AND OPPORTUNITIES

***Ms. RUKSAR. M. KHAN**
Anjuman Arts and Commerce College,
M.Com Department, Belagavi, (Karnataka).

***Mr. PRAVEEN B. PATIL**
Research Scholar
Kousali Institute of Management Studies
Karnatak University,
Dharwad (KARNATAK)

ABSTRACT

Digitalization which is the need of today's world is the result of innovations and technological advances. Every country is aiming to achieve digitalization to empower society in a better way. Digital India is a flagship program launched by the Government of India to transform India in a digitally empowered and knowledge economy. This drive came as a dream project of the Indian government to remodel India digitally. The Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. Digital India is a dream to ensure that government services are made available for all citizens electronically by improving online infrastructure and by increasing the effectiveness of Internet connectivity with one mission and one target that is to take nation forward digitally and economically. In order to realize the full potential of this programme, it is necessary to address certain challenges in the way of its successful implementation like digital illiteracy, poor infrastructure, low

internet speed, lack of coordination among various departments, issue pertaining to taxation etc.

Key Words- *Development, Digitalization, Infrastructure, E-governance*

INTRODUCTION

India is famous as a powerhouse of software in the world, but even though the availability of electronic government services to citizens is still comparatively low. The National e-Governance Plan approved in 2006 has made a steady progress through Mission Mode Projects and Core ICT Infrastructure, but greater thrust is required to ensure effective progress in electronics manufacturing and e-Governance in the country.

Digital India was launched by the Prime Minister of India on 2nd July 2015 with well-defined objective of connecting rural areas with high-speed Internet networks and improving digital literacy. The vision of Digital India is inclusive growth in many areas such as electronic services, products, manufacturing and job opportunities etc. Digital India aims to provide the much needed focus on the nine pillars of growth areas, namely Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, e-Governance: Reforming Government through Technology, e-Kranti - Electronic Delivery of Services, Information for All, Electronics Manufacturing, IT for Jobs and Early Harvest Programmes. Each of these areas is a complex program in itself and cuts across multiple Ministries and Departments. Digital India is to be implemented by the entire Government with overall coordination being done by the Department of Electronics and Information Technology.

OBJECTIVES

- To understand the concept of 'Digital India'
- To evaluate the opportunities and challenges with special reference to 'Digital India.

- To find out the challenges faced in implementation of this programme.
- To study how digitalization benefits social and economic conditions.

RESEARCH METHODOLOGY

The study focuses is an attempt of extensive study, based on Secondary data collected from various other research paper, Books, Newspaper, Journal and Magazines article and Media reports.

Being an explanatory research it is based on secondary data of National & International Journals, articles, government reports, books, newspapers and magazines covering wide collection of academic literature on 'Digital India'. Considering the research objectives, descriptive research design is adopted to have more accuracy and rigorous analysis of research study. Available secondary data was extensively used for the study.

Meaning of Digital India

Digital India is a campaign launched by the Government of India in order to ensure the Government's services are made available to citizens electronically by improved online infrastructure and by increasing Internet connectivity or by making the country digitally empowered in the field of technology. The initiative includes plans to connect rural areas with high-speed internet networks. Digital India consists of three core components: the development of secure and stable digital infrastructure, delivering government services digitally, and universal digital literacy.

Meaning of Digitalization

Integration of digital technologies into everyday life by the digitization of everything that can be digitalized. It is the adoption of digital technologies to modify a business model. The aim is to create a value from the use of new, advanced technologies by exploiting digital network dynamics and the giant digital flow of information. Digitalization is the integration of digital technologies into everyday life by the digitization of everything that can be digitized. The literal meaning of digitalization gives an apparent idea of development and

technology dependent world. In this context,digitalization means computerization of systems and jobs for better ease and accessibility.

E-Governance:

Electronic governance or e-governance is the application of information and communication technology (ICT) for delivering government services, exchange of information, communication transactions, integration of various stand-alone systems and services between government-to-citizen (G2C), government-to-business (G2B), government-to-government (G2G), government-to-employees (G2E) as well as back-office processes and interactions within the entire government framework. Through e-governance, government services are made available to citizens in a convenient, efficient, and transparent manner. The three main target groups that can be distinguished in governance concepts are government, citizens, and businesses/interest groups. In e-governance, there are no distinct boundaries.

ADVANTAGES OF DIGITAL INDIA

It will give many opportunities to use latest technology by providing access to education, health, financial services etc. It will help in improving the social and economic condition of people living in rural areas:

1. Digital India Plan increase GDP to 1 trillion by 2025. It also generates employment, GDP Growth, increased labor productivity and entrepreneur opportunities.
2. It will generate 17 Million jobs directly and 85million jobs indirectly and almost 100 million Jobs will be created by the plan in next 5 years.
3. Some sectors like education, healthcare, banking and many more sectors unable to reach out to rural areas. There are so many obstructions like information, awareness, poverty, illiteracy and ignorance.
4. India is huge market for internet and mobile connectivity, 3rd largest market in internet users and 2nd place in

wireless subscribers still there are a big scope in Indian digital market

5. Digital India projects will provide real time education, Smart and virtual classroom will help to take challenges where there is lack of teacher's .Education to Farmers, fisherman can be provided with the help of projects.
6. M.Health can promote innovation & increase the reach of healthcare services. Online medical access with many more features help in fighting from poor doctor ratio.
7. Agriculture sector in India contributes 16% in India GDP while almost 51% in employment. It help our Farmers to know-How in various agriculture activities like crop choice ,seed variety, weather ,Plant Protection and market rate information .
8. 25,000 Villages ,2,50,000 Education institutions will be connected through internet by 2019, almost 42000 villages where there is no mobile connectivity will be connected through Projects .
9. Many service industries like banking, Insurance, Hospitality, Aviation, Railways need it as a boosters because these service business will get maximum benefit from these projects.
10. Digital Lockers will help citizens to store thei Important documents like PAN Card, Passport, Mark sheet, Degree & Certificates Digitally. Secure Access to Authenticity through AADHAR.
11. E –Sign will help electronically signed the documents & National scholarship Portal help the students
12. Reduced corruption, Quick Working, reducing paper work and increased efficiency of business more business opportunities in this sector.

CHALLENGES FOR DIGITAL INDIA PROGRAM

The Digital India Initiative is an ambitious project of the government There is so many challenges for the completion of the project Lack of coordination among departments It is very large project which including many departments so a strong and timely support is most important for the timely completion of the projects

1. High cost of Implementation: - A very high amount is required to implement the all project of DI plan approx Rs.1.13Trillion (Including ongoing and new Projects)

2. Infrastructure :- National Optic Fibre Network (NOFN) Project is planning to build a high speed broadband highway but still we need other supportive Infrastructure such as robust and large data center for managing a large data of entire country .

3. Time Overrun:-NOFN Project has been delayed several times and suffering two years so it also delayed other projects .Timely completion of the projects is most important for the successful of the projects.

4. Participation of Private Players:-so many regularities checks and long and delayed projects breaking entering private players in Digital India Projects. Private companies will play a crucial role in its success

The OPPORTUNITIES of DIGITAL INDIA in word-form of DIGITAL…

[D]istinguish

[I]ntegrated

[G]lobal

[I]ntegral

[T]ransparency

[A]ccessibility

[L]ucrative

[D]istinguish: Positive citizen perceptions around access to government through both traditional and digital channels provide an excellent and distinguish starting point for governments. Governments with resources to invest can commit to improving access and engagement with digital. Those that must cut costs must do so in a way, that builds in digital capacity while locking in strategic gains to date. Either way, digital has the inherent potential to create its own efficiency gains, a clear benefit in any funding environment.

[I]ntegrated: Agencies have made various inroads in breaking down organizational and process silos to better integrate citizen service, and technology has played a large role in facilitating this. As digital programs mature, it will continue to be important to create consistent "one-stop-shopping" service experiences for citizens. Like for Smart cities – In order to be a 'true' smart city, cities need to have an integrated approach whereby various projects are connected and most of all the data and platforms are glued together in order to achieve all the benefits smart cities make possible.

[G]lobal: What if India had not invented the zero? Perhaps computers would not have seen the light of the day and the world would not be connected through the information technology. With the Digital India programme, India may have an opportunity to inspire and transform the world yet again. Sixty years ago, South Korea decided to change itself in a similar fashion and known as 'The Miracle on the Han River', which has helped South Korea to sustain its leadership position across the world. Digital India has the potential to unleash a similar miracle in the land of Ganga.

[I]ntegral: The concerns for end customers: people, communities, and clients must be integral part of this Digital India programme because they are setting the expectations for digitally-enabled services. The transformation required for digital service delivery at

the People level is a transition from managing people to managing the things that help or hinder them.

[T]ransparency: Although transparency seems to be on the agenda of most governments, results are diffuse and do not reveal a consistent implementation of this principle. Blockchain is a new, powerful tool that is already shaping the future of the Internet with simple, safe and secure transactions. Adopting blockchain technology, Dubai stands to unlock 5.5 billion dirham in saving annually in document processing alone – equals to the one Burj Khalifa's worth of value every year.

[A]ccessibility: While many citizens are connected today, the digital divide is still a critical concern in countries as diverse in a country like ours.

A recent survey — 56 percent of respondents think that digitization of government will create a service gap for those without Internet access or for citizens who have not yet embraced digital interactions. Governments have a lot of work to do here. Digital government must be about fostering greater inclusion with programs that go beyond implementation to account for driving lasting adoption among target audiences with unique demographic profiles.

[L]ucrative: The opportunity of new/lucrative approach which encourage citizen to engage in Digital initiatives. To build effective digital government services that are consistently used by citizens, governments must avoid the trap of simply replicating and digitizing old processes that are inherently ineffective. Instead, when going digital, governments must take a holistic look at existing processes and build online services with a differentiated approach that takes into account, and full advantage of, the entire spectrum of benefits of the online channel.

The CHALLENGES of DIGITAL INDIA in word-form of DIGITAL…

[D]NA

[I]nfrastructure

[G]o-Cashless

[I]mplementation

[T]hreats

[A]wareness

[L]iteracy

[D]NA: Digital is not yet in the DNA of many state governments. Just as e-government performance is not revolutionarily improving, the policy priorities of the consecutive e-government action plans have not changed so much. In all honesty, we could doubt to what extent public sector has really advanced over the years in acquiring an attitude that can deliver on the potential of digital.

[I]nfrastructure: The biggest challenge faced by Digital India Programme is the slow/delayed infrastructure development. Spectrum availability in Indian metros is about a tenth of the same in cities in developed countries. Also, the digital divide needs to be addressed through last mile connectivity in remote rural areas, as currently over 55000 villages remain deprived of mobile connectivity.

[G]o-Cashless: The Gaps in India's Cashless Infrastructure. While the cashless initiative in India is spearheaded by the government, all development and design work being undertaken by all participants needs to follow a thorough testing process to plug security and fraud gaps. Some of the real-world challenges that financial institutions are facing from a security point of views stem largely from the fact

that holistic security of the ecosystem was not given as much emphasis as functionality in the initial roll-out phase.

[I]mplementation: This point will come into picture when you have allocated the required resources and material but when it comes to implementing them, most of them will be hesitant to change. People are accustomed with years of same practices that they are not ready to change. The number of automated services has remained stable since their first roll-out. The use of legacy software likely has huge complications for the modernization of eGovernment services and can hinder full implementation of this programme.

[T]hreats: Apart from many Cyber threats, for the internet of things (IoT) to become a business enabler in India, security considerations must be adequately addressed. At the recent IoT Congress event in Bengaluru, where Deloitte and NASSCOM presented in a new study that India now has 41 IoT use cases, including smart manufacturing supply chain, service operations, transportation /logistics, healthcare, smart governance and smart utilities. Regulators have worked toward including data protection and privacy as part of an IoT framework. For instance,MeitY and TRAI have come up with an IoT framework that mandates certain data security measures.

[A]wareness: There continues to be a general lack of awareness in Public Service Departments of how digital technology changes public service design to deliver agile, easy-to-use, consumerized services at lower cost and in a way, that emulates our daily experiences in the private sector. The challenge is to build an understanding amongst public officials of the radical impact that common service platforms might have on their operations and organizational models.

[L]iteracy: Digital illiteracy is prevalent in most of the towns and villages in India. Cities have adopted digitalization but limited to certain extent. Full-fledged digitalization is cashless transaction on daily basis, use of internet services to get govt certificates etc. This requires administration changes and changes in public mentality.

Improving IT literacy is a great task ahead because for the mission to become successful, it is necessary that mass people must know how to utilize the digital services. So, it's a team work which includes citizen's responsibility and support to the new system.

Scope of Digital India Programme

The scope of Digital India programme is:

(a) To make technology central for enabling the change.

(b) To prepare India a base for a knowledge in future.

(c) On being transformative that is to realize IT (Indian Talent) + IT (Information Technology) = IT (India Tomorrow)

(d) To make this an Umbrella Programme for covering several departments. This programme aims to weaves together a large number of individual ideas and thoughts into a single, comprehensive vision, so that each of them is seen as part of a larger goal. Each individual element of such thoughts stands on its own, but is also part of the larger picture. The weaving together makes the Mission transformative in totality.

(e) Many existing schemes which would be restructured and re-focused will be put together by this Digital India Programme and will be implemented in a synchronized manner. The common branding of the programmes as Digital India, highlights their transformative impact.

CONCLUSION

Digital India is ambitious programme of Government of India. It was started to transform India into digital world, empowered society and knowledge economy. Government services will provided to citizen with the E-services (For policies implementation) and E-governance (For Government Department)as it will take speed in implementation as a economy will emerge with more transparency, speedy implementation of government policies ,reducing corruption , more productivity ,less paper work ,more employment more informative way. Information is a backbone of speedy decision which helps in growth of economy. Millions of jobs, mobile connectivity, internet highway, online information and many other things create a new India.Digital

literacy should provide knowledge to secure their online data. Massive awareness is to be created particularly in rural areas. E-Governance will help in reducing corruption.

A digitally connected India can help in improving social and economic condition of people through development of non-agricultural economic activities apart from providing access to education, health and financial services.However, it is important to note that ICT alone cannot directly lead to overall development of the nation. The overall growth and development can be realized through supporting and enhancing elements such as literacy,basic infrastructure, overall business environment, regulatory environment, etc.

REFERENCES

1. *Economist (2005), The Real Digital Divide, Technology and Development Survey, The Economist, March 10th.*
2. *Goswami, H. (2016).Opportunities and Challenges of Digital India Programme. International Education and Research Journal, 2(11), 78-79.*
3. *Gulati, M. (2016). Digital India: Challenges and Opportunities. International Journal of Management, Information Technology and Engineering, 4(10), 1-4.*
4. *Gupta, N., & Arora, K. (2015). Digital India: A Roadmap for the Development of Rural India. International Journal of Business Management, 2(2), 1333-1342.*
5. *http://egovernance.in/news/digital-india achievements concerns*
6. *http://www.digitalindia.gov.in/content/transformingindia-ebook*
7. *http://www.thebetterindia.com/27331/12-projects-you-should-knowabout-under-the digital-indiainitiative*
8. *http://www.indiacelebrating.com/government/digital-india*
9. *Economic Times*
10. *Business Standard*
11. *Financial Express*

12. *Times of India*
13. *www.makeinindia.com*
14. *www.pmindia.gov.in*
15. *www.mygoc.in*
16. *www.ebiz.gov.in*
17. *www.wikipedia.com*
18. *www digitalindia.com*