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#### A REVIEW ON THE DIGITALISATION IN INDIA

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#### **ABSTRACT**

Digitalisation is the second stage after Digitization and before the final stage of digital transformation. Digitization and digitalisation are two conceptual terms that are closely associated and often used interchangeably in a broad range of literatures. Digital transformation happens, which means a way to move to digital business. Digital transformation requires digital business and digitization. India has become favorite destination for FDI among emerging economies which shows that digitalisation and the process of digital transformation would be fast tracked by latest technology being unleashed in those sectors which attracted FDI including ancillary industries, it promotes open access to relatively all stakeholders. The process of digitalisation is marked by cost effectiveness to cut the cost that incurred in various knowledge practices related to the production, organization and communication of information that makes long-term economic growth. This paper highlights the Review of digitalisation in India along with the findings and conclusion.

#### **KEYWORDS**

digitalisation, digital transformation, cost effectiveness, open access.

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#### INTRODUCTION

India is adding almost 110 million Smartphone users every year, and is on the verge of launching Aadhaar-compliant devices with biometric authentication built into phones and tablets. The power of the JAM trinity (Jan Dhan Yojana- Aadhaar-Mobile) will come into full force when transactions are enabled using Aadhaar and biometric authentication, creating a system that is not only cashless but cardless. Already, a new entrant into telecommunications service in India has succeeded in using the India Stack to enroll 108 million consumers in 170 days with a totally paperless, mobile-centric manner — in the process achieving customer acquisition costs of less than \$1 (USD) per customer, compared with the prior industry standard of \$25. The process of digital disruption — whether led by government or not — creates numerous significant social challenges. Rather than seeking to slow that process to reduce those challenges, India has taken the opposite approach: to not only embrace but accelerate digital disruption, to ensure its full potential for economic and social inclusion is realized. India's development was inequitable and inconsistent for far too long; the country still has a long way to go. The societal challenges created by digital disruption, challenges both expected and unintended, are real. They will be addressed only with a combination of administrative humility and entrepreneurial determination. But the long-term benefits are real. The reality is that India is moving into the future at an unprecedented rate. And the path it is taking to get there is digital.

#### **NEED FOR REVIEW ON DIGITALIZATION IN INDIA**

India is a country with nearly 1.35 billion population. There is an urgent need to co-ordinate and co-operate efficiently and effectively in cost effective manner to reach to entire population and raise the information sharing in as smooth manner as possible thereby eliminating bottlenecks currently hindering the abovementioned scenario. So, there is urgent need to review the current situation with regard to literature available on the topic - DIGITALIZATION IN INDIA.

#### SCOPE FOR REVIEW ON DIGITALIZATION IN INDIA

There is a lot of scope to review literature on the abovementioned topic in order to familiarize the stakeholders to recalibrate the policy initiatives in order to achieve the recently launched initiatives by the current ruling dispensation to fast track the digitalisation process in India.

#### **OBJECTIVE OF THE STUDY**

The objective of the study is to find out the present status and need of digitalisation in India.

#### **RESEARCH METHODOLOGY**

The study is based on the secondary data obtained though the researches already conducted on the issue, which will be collected from various sources Journals, Books and other Publications.

#### **REVIEWS OF LITERATURE ON THE DIGITALISATION IN INDIA**

Digitization has the potential for dramatic economic, social, and political improvements. Anecdotal evidence abounds: water utilities have installed sensors that reduce leakage, saving water and money; healthcare organizations send text messages to pregnant women with advice on prenatal care, creating a healthier new generation before children are even born; fleets of trucks use digital GPS devices that direct them to shorter routes, cutting down on their greenhouse gas emissions. The challenge for all stakeholders in the ICT ecosystem has been to quantify the impact of digitization. Numerous organizations, including the World Economic Forum with its evolution of the Networked Readiness Index, are taking steps in that direction. Our hope is that this analysis, which illustrates the need to define and measure ICT beyond broadband access, can provide an input on such efforts. However, realizing the opportunity that broadband presents will require that policymakers undergo a shift in their thinking. They must go beyond considering ICT and focus instead on digitization, with an emphasis on ICT usage rather than just access. They must take into account their current level of digitization in order to ensure that they are focusing on the right investments to advance to the next stage. And they need to look with fresh eyes at policies that were developed a decade ago to

understand how they can be updated for a new era. Policymakers are hopeful about this opportunity, and many are committed to action. The steps they take in the coming years will determine whether they can translate opportunity into reality.

- 2. India will be reincarnated into Digital India by 2022, this depends on the implementation of the formulated policies and programmes. By launching the Digital India Programme the Government of India has developed a path for this transformational journey. Although the path to achieving the desired state of 'Digital India' seems largely, smooth it is by no means a straight forward one and has some stumbling blocks and impediments. The National Informatics Centre (NIC) is largely unprepared for facing stumbling blocks and impediments that Digital India will encounter. Upon reflection of the Digital India Programme and the various factors that need to be considered at all the stages of the Programme including the development, implementation and adoption the DIP can be viewed as a truly revolutionary initiative. By providing the opportunity to educate and enhance the digital skill set of potentially the whole population, the Programme has the potential to create an environment of not just digital but overall social inclusion the optimal state of a nation is to achieve social inclusion of all citizens which can partially be attained through digital inclusion. Thus, the DIP provides not only a promising but an exciting opportunity for the whole of India. In order to make this vision a reality, nevertheless, requires a cultural transformation of Indian citizens and their habits possibly the most critical yet enthralling challenge facing the creators of the DIP. If DIP achieves the expected results then, in the new economy, India would be in a perfect position to succeed and sustain positive national growth, which is a crucial element in enhancing India's global competitiveness. The future for India, as the ambitious DIP suggests, is bright.
- 3. Digital conversion of print sources has improved rapidly in the past few years. Digitization is the social transformation started by the massive adoption of digital technologies to generate, process, share and manage digital information. Digitization is an inclusive technique of preservation and access by which all the institution's assets are transformed into digital and creating high-quality copies in digital format. It provides advanced opportunities for preservation and access to knowledge contents, also it changes the ways in which collections are used and accessed. Emerging digitization initiatives and ways in which institutions are becoming digital are causing various effects on economy, society and academics as well. These radical and rapid changes make the information presentation and distribution more rapid, open, and global access to the information than has been available in the past. In addition, converting material from analog to digital format reduces some of the costs included in digitization operations for providing access to print sources. However, the digital copies should not be a replacement for the original items of knowledge.
- 4. Digitalisation is for social transformation. Digital empowerment is essential for extending the benefits of ICTs to all strata of the society, with special focus on people with special needs, in order that they will be able to fully, if not equally participate in all aspects of life, exercise their duties, contribute to and enjoy the rights and benefits as members of the society. However, majority of the developed economies have become broadband-based information societies and are using the internet not only to connect people, but also things, in what has been called the Internet of Things. The digital economy that is driven by information technology and e-commerce is being developed worldwide. Digitization provides an opportunity to collect information in real time and to collect information more effectively related to the needs of consumers. Business world fully utilize the advantages of digitalisation to successfully grow in this competitive environment.
- 5. These challenges indicate that Digital India has a long way to go on its road to reality in its truest sense. The government cannot overstep them, no matter how trivial they might seem to be. It is an initiative to build Digital infrastructure and provide Internet access, service to every citizen along with Digital literacy to empower them to utilize it effectively. Although, digital India programme is facing some barriers, yet it has a great impact on India to make the best future of every citizen. We Indians and others should work together to shape the knowledge economy. More employment prospects will open for the youth that will boost the nation's economy. Digital India campaign is a welcome step in shaping India of the 21st century powered by connectivity and the technological opportunity. In short, this paper focuses on certain barriers and providing some suggestions to face such challenges. Focusing on these obstacles, if the government of India tries to get over them by using effective methods then there is no doubt in India being a digitally empowered country.
- 6. Standard & Poor's survey shows that, over 76% Indian adults lack basic financial literacy and they don't understand the most basic and key financial concepts. The digitalization brings innovation, ease of working, new job opportunities and growth in the economy. It helps to bring transparency in the system and more transparent are the flow of funds in the economy less is the problem of tax evasion, parallel economy etc. But with all these benefits available it also makes it necessary for the people to have basic financial knowledge and a push towards the importance of the financial literacy. Digitalization can also play an important role in achievement this goal as it can have a greater reach to the people. India is known for its frugal innovation, and offers tremendous scope to develop or adapt high-tech innovations en-masse. To be successful in India, the startups will have to understand Indian culture and the need of the Indian consumer and businesses, and invest in local talent or joint-venture approaches with Indian companies. The important factor to consider for startups will be to learn to do business the Indian way by understanding the Indian market. Rapid Internet and mobile penetration, increasing demand for technology related services, a large number of small and medium sized businesses, favorable government policies and regulations makes India one of the most ideal destinations for investment. It is important that startups seeking growth opportunities in India have a long- term vision as far as India as a potential market is concerned. Thus, blend of factors like economic growth, favorable government policies and technical talent is making India a coveted destination for international startups. These trends are likely to continue in the foreseeable future and startups have tremendous opportunities to expand in India.
- 7. E-governance doesn't mean only to attain the electronic governance but also the effective, enabling, efficient governance for the development and digitalization of India. Promoting and providing easy and affordable access to the digital world across rural-urban divide would do wonders. The success lies in passing digital vibes to the grass root levels. For which the citizens and the government must work hand in hand. The recent scenario of Demonetization has moved huge crowds towards digitalization. People who had access to digital platform did see it as a major burden. Because, they were able to go through day-to-day transactions with apps like Paytm and e-banking etc. It brought unavoidable situation for people to switch to digital world. Despite many hurdles, India is on a great pace towards its digital destination.
- 8. Digital technology, despite its seeming ubiquity, has only begun to penetrate industries. As it continues its advance, the implications for revenues, profits, and opportunities will be dramatic. On average, industries are less than 40 percent digitized, despite the relatively deep penetration of these technologies in media, retail, and high-tech. Bold, tightly integrated digital strategies will be the biggest differentiator between companies that win and companies that don't, and the biggest payouts will go to those that initiate digital disruptions. Digitization is putting pressure on revenue and profit growth. Digitization is penetrating all sectors, but to varying degrees. Some digital initiatives generate attractive returns, while others don't return their cost of capital. Products are more digitized, while supply chains are less so. When companies respond to digitization assertively and across multiple dimensions, they improve their performance. Leading corporate ensure that digital strategy is aligned with corporate strategy. Disruptive strategies are a powerful response to intense digitization. Fast following and great execution are the next best things to disruption.
- 9. Knowledge Triangle (KT) model is useful as it forms the stage for research-education and research-innovation linkages. Understanding is required about what stakeholders think regarding the changes in linkages under digitalization and highlight recent developments of tools and instruments for making the KT systems sustainable. The special feature of the KT is that all stakeholders (government, business, universities and nonprofit organizations) are somehow involved into knowledge production and to a different degree perform research, innovation and education activities.

#### **FINDINGS**

Digitalization in India is happening at a rapid pace. Management and operation of National Optical Fiber Network to provide a minimum of 100 Mbps broadband connectivity to each one of all 2,50,000 Gram panchayats in the country covering nearly 625,000 villages to transform to Digital India. The last mile connectivity with a total of 7,00,000 wi-fi hotspots to cover all 625,000 villages of India, by adding 2 to 5 wi-fi hotspots per gram panchayat and minimum one wi-fi hotspot per village, have been created by connecting high-speed 4G base tower stations of commercial telecomm operators to BharatNet, whereby commercially non-viable wi-fi hotspots will be subsidised by the union government grant of ₹3,600 crore to sustain the operation. Government has discounted the bulk BharatNet bandwidth rates to the commercial telecom operators by 75% to enable them to offer the highly-discounted, affordable, compet-

itive and commercially-viable BharatNet-enabled wireless cellular 4G broadband deals to the rural customers. The ₹45,000 crore union government share of funding will come from the "Universal Services Obligation Fund" of Department of Telecommunications. It will be rolled out with the additional funding by state governments to connect all gram panchayats in India. The BharatNet is, world's largest rural broadband connectivity program. It is built 100% under "Make in India" economy-booster employment-generation initiative with no involvement of foreign companies.

#### **CONCLUSION**

Citizens are increasingly using mobile devices to access various public sector services on the go. Integration of online services with governance will not only enhance citizen engagement but also foster connectivity and provide a seamless experience.

#### **SUGGESTIONS**

- 1. **DIGITAL INFRASTRUCTURE**: Governments must increase the spread of digital infrastructure such as optic fiber cables, telecom towers, Internet and Wi-Fi hotspots. To enable this, adequate policy reforms, incentives for private players, utilization of existing infrastructure and ease of doing business needs to be established
- 2. **MULTI CHANNEL SUPPORT**: Rendering services through not just mobile but other channels such as bank branches, websites, CSCs and post offices will help in providing better user experiences and accessibility. Moreover, providing retail shops with an integrated easy-touse mobile-based platform for offering G2C, B2C and other services to citizens and institutions will also be helpful.
- 3. **LOW CAPITAL INVESTMENT**: There is a need to guide and support Central and state IT projects and help them become low capital investment projects. One approach that can be included as a guideline in the model RFP is refraining from the procurement of computing, storage and network infrastructure. This must be procured as infrastructure or platform as a service, with adherence to Meity-defined cloud procurement and security guidelines.
- 4. **DATA SECURITY:** Governments store critical data and information on their servers. With the rising incidence of cyber-attacks, it is crucial for the government to protect the data of citizens and reassure them of data security. Also, the government must educate and inform citizens and institutions about the risks and good cyber security practices while conducting electronic transactions. Digital India Targeting inclusive growth 25
- 5. **BIG DATA AND ANALYTICS**: Machine learning and big data analytics could be adopted in= vital areas such as health, education, fraud analysis, financial leakages, cybercrime and other domains to identify citizen/ institution behaviors and service usage patterns to improve service delivery. Moreover, customer data could be used to pre-emptively provide the right set of services to citizens at the right place and the right time.
- 6. LOCATION BASED SERVICES: The next leap in digital will be capturing local coordinates and providing tailored services to people for an immersive experience—for instance, providing traffic updates in real time or helping someone who has newly migrated to a city with registration for power, gas or electricity connections.

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