

A Study on Asian Country Evolution in the Digital Era

Dr R. Nithya ¹

School of Computing Science,
KPR College Arts Science and Research,
Coimbatore-641 407, Tamil Nadu, India

nithya.r@kprcas.ac.in

V. Gokul ², A.Kaviya Dharshini ³, V.Kabilan ⁴, N.Kiran ⁵

Department of Commerce (Computer Application),
KPR College Arts Science and Research,
Coimbatore-641 407, Tamil Nadu, India

gv902105@gmail.com

ABSTRACT

Today's technology is developing and permitting quicker modifications as progress is made. Globally, there is a need to adapt to emerging technologies such as cyber security, quantum computing, the world's smartest devices, artificial intelligence, digital trust, 3D printing, and the Internet of Things. The Indian economy is growing across all technological disciplines. The greatest successes for India have been Skill India, Made in India, Smart Cities, and Start-up India. Particularly in the fields of electronic services, product production, and employment opportunities, digital India had inclusive growth. The impact of digitalization can only be seen clearly when people are able to comprehend and use them, and to do so, each person needs to be financially literate in order to be able to make wise decisions. Because financial transactions after the advent of digitalization must be made online, financial literacy has become a crucial skill. Through digitalization, we can change a business model and generate new revenue, as well as create new jobs. This essay focuses on how industry 4.0 hasn't been implemented more broadly and how digitalization has affected MSME and service industries. Why digitalization is so crucial, what industries are affected, how can we become the third-largest economy in the near future, and how does digitalization work? How can we as the third largest economy in the near future and why is digitalization so crucial? What industries have been impacted? How has it helped to increase the use of e-wallets and bring transparency to financial transactions?

Keywords: Digital India, Digital Trust, Digital Economy, Inclusive Growth, Development of India economy.

1.Introduction

As the process of developing new systems in business process engineering, digital technology transformation. the nation's small business unit's digital transformation. New business and economic prospects are being produced by information technology. Data analytics, artificial intelligence, Industry 4.0, and machine learning are the most recent technologies that are essential to every person in the digital India. Every country has produced commercial technology applications. The common services centres aim to connect all Gramme Panchayats in India to other government initiatives including Made in India, Start-up India, and Bharat Net. Following each citizen's digital empowerment, governance and services will be available on demand. considered using electronic services to reform governance.

Although digitization and digitalization are two independent processes, they both have an indirect or direct impact on the "Digital India Initiative". While digitalization is the process of utilising various technologies/methods to alter business prospects and reach efficiency goals, digitization is the process of turning our data into bits formats and is primarily related to digital data. Because of the cash shortage, the use of digital money has dramatically expanded in recent years, bringing transparency and aiding in the eradication of the parallel economy. Post-demonetization was the point at which people began to recognise the significance of digital transactions. Now more than ever, it is crucial to educate every Indian citizen about money matters because doing so will have a positive impact on the nation's economic development by enabling people to plan their finances wisely. According to the World Bank, financial literacy is "the capacity to comprehend fundamental financial concepts and the possession of knowledge and skills required to make informed and effective financial planning, decisions using the available financial resources." It involves being able to make, spend, invest, and save money. In a way, it will also make the job of the government easier because it is the capacity to manage your finances efficiently by making the best use of the financial goods and resources that are readily available to give you maximum benefit.



Fig-1 : Digital India Initiative

2. Problem Identification

With around 70% of the population living in rural areas and India being a developing country with numerous financial problems, it can be challenging to teach people about digitalization and its effects. India is improving in many areas, such as internet usage, but the biggest hurdles lie in getting people to utilise it properly, which can boost their output and contribute to the economy, as well as in teaching them financial literacy.



Fig-2 : Economy Growth Ratio 2022 Vs 2023

3. Economic Growth of Technology

In order to tackle the issues in numerous domains and industries in the government and non-government sector, technology is a process of transformation for connecting across various government domains. The nation's future can be fuelled by development of a comprehensive technology. Its ecosystem and space economy's semiconductor. Modernise the nation's use of drones, green energy, mobile cleaning systems, and pharmaceuticals. Government support will be given for development in addition to efforts made by academia, business, and public organisations.



Fig-3 : Economy Digitization Growth

3.1. Digital Travel And Tourism Industry

The government launched new measures for the tourist and digital sectors, including online support lines for the sectors of e-ticketing and e-visa. As the third-largest market in the Asia Pacific area, India presented a huge opportunity thanks to the worldwide digital travel sales generated by the tourist sector. Observe the fast internet connection over the board. To advance this industry, secure regulatory and policy environments and online payment systems are needed. In terms of foreign tourists, India offers more alluring locations.

3.2. Artificial Intelligence Development

Technology was the focus of the Digital India initiative to increase GDP. Directly or indirectly, they benefit the countries. There are two different types of learning systems: supervised and unsupervised. Artificial intelligence is a brand-new learning method that is used to make computers understand and think like humans. India already needs to employ speech, voice, and image recognition for the delivery of care for the measuring, rehabilitation, and care. For AI genomics, drug discovery, and stem cell therapy, India needs to establish a national AI research lab. The government must allocate funds to build a research lab because nanotechnology is used in precision medicine. With the introduction of digital technology, India's economy will experience rapid growth. Health app usage is rising, and technology is making it easier to diagnose and cure medical conditions and to have better health awareness. India has been buying accessories for watches and cellphones. usage of mobile devices for internet consumption. The Indian government will implement internet-based service delivery for common citizens.

4. Literature Review

How can financial literacy and digitalization change the face of a developing country like India? Financial literacy is necessary for everyone to be able to make wise decisions and put various programmes into action (Kaul, 2017).

The readiness of the industries to shift gears from the old system to the digitalized system and understanding the distinction between digitization & digitalization in their industries (Rymarczyk, 2019).

Impact of technical developments like industry 4.0 on the manufacturing sector, their ability to alter the economic cycle, and the challenges they encounter when they are implemented (Pranjali, 2017).

Impact of digitalization on MSME (Micro Small and Medium Enterprises), able to see good future growth but yet facing numerous obstacles owing to the access to finance and the abrupt shift in technology and being unable to catch the current trend (Maiti, 2017).

Impact of information technology (IT) and IT-enabled services on various industries, with a focus on the service and MSME sectors, which have the ability to grow and lead the economy in the forefront, has a significant impact on Indian trade (Kumar, 2019).

The effects of digitization on the Indian economy, the adjustments that must be made to remain relevant in the modern world, and the effects on GDP, unemployment, FDI, and other factors (Aftab, 2015). Information and communication technologies (ICT) have completely changed every industry, and digitising information has several socioeconomic, environmental, and ecological advantages. (Khan, 2019) ICT have also completely transformed every industry.

5. Digital Era a Framework

The digital economy is expanding quickly in both emerging and established countries, and the model provides information on the size and origin of the Indian economy's digital sector. ICT technology can be used most broadly in each industry to offer the greatest benefits.

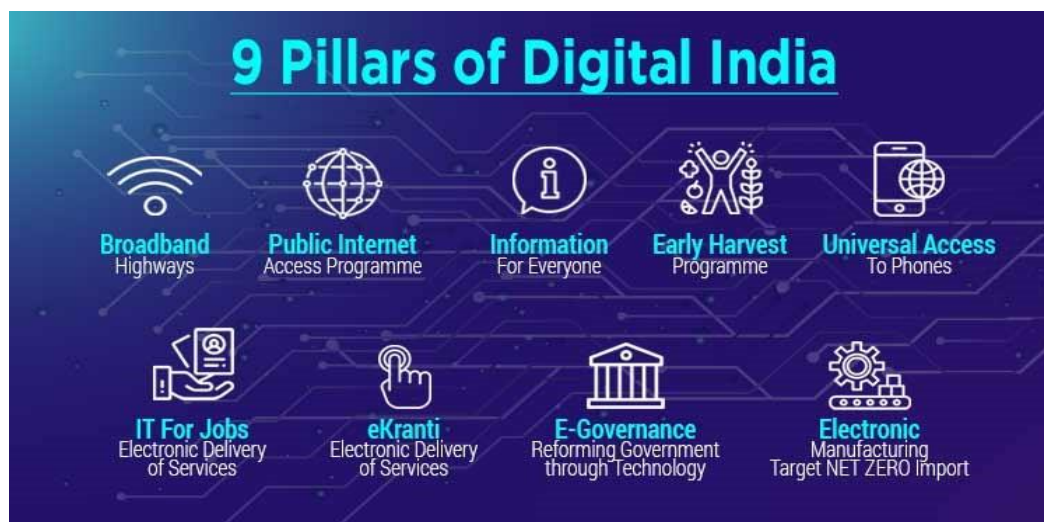


Fig-4 : Digitalization Framework

5.1. Digital Education And Learning System

High levels of illiteracy are still one of India's major challenges when it comes to going digital. E-Learning systems and programmes were implemented in India together with other forms of educational technology. The standard of instruction will rise across the board thanks to e-learning and mobile learning. Every university has an online course presented as a part of their curriculum. The Indian government has more frequently introduced cybersecurity courses. Collaboration with worldwide certification and online learning are used to increase skills. funding allocated by the government for IT infrastructure at educational institutions. India has some of the best educational institutions, thus their universities should collaborate and share knowledge. Foreign students have also started enrolling in Indian universities as the education system has improved. The nation with the most IT trust challenges for world-class education. In comparison to other emerging nations, the everyday usage of the internet and the speed of WIFI is very low. Data, privacy, and security will enhance online commerce and business, maintaining customer faith in the digital ecosystem and cybersecurity to keep an eye out for cybercrime. The government raises public awareness of the need for secure online data processing. In addition to Digital India, Start-up India, Digital Trust, Skill India, etc., India is lagging behind in the adoption of ICT.

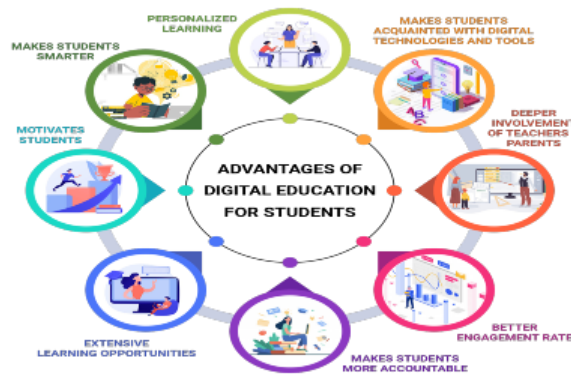


Fig-5 : Digital Learning System

For digital transactions to be successful on a worldwide scale, hotspots are required. Keep up the digital infrastructure for international cooperation. Create digital infrastructure in India without affecting the country's rural markets. Due to many factors in drawn-out and complicated regulatory processes, there is inadequate private engagement in the digital India project. A public-private collaboration should assess and investigate the viability of constructing digital infrastructure using power.

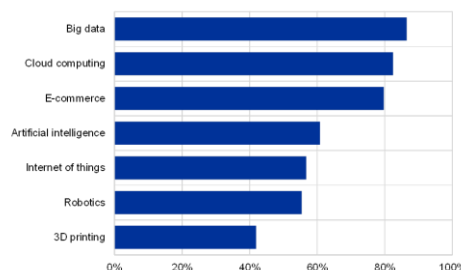


Fig-6: Impact on Technology Platform Growth

Rural and urban inclusive growth differs from one another in terms of infrastructure access, pricing, and the way that it educates people about using technology. Only the revolutionary role of technological advancement can revolutionise the economy. Changes in technology are more significantly impacted by

the growth of humans. Because of Digital India, Smart Cities, Start-up India, and Made in India, India has had significant success. More growth in all areas, not just the economy, will be experienced by every Indian thanks to them.

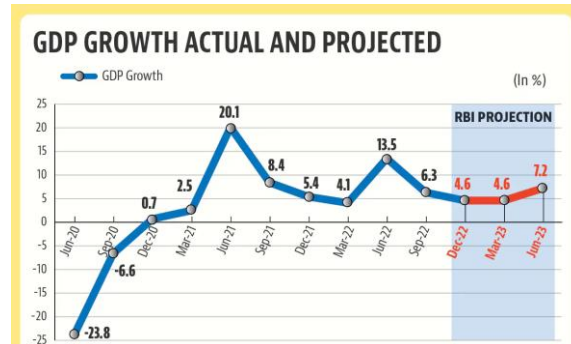


Fig-7: GDP Growth Rural vs Urban

5.2 Digital Economy

Information technology is used in the "digital economy" to produce, modify, market, and/or consume goods and services. Digital includes online shopping, virtual learning, smartphone apps, and collaborative tools. the formation of a start-up that will drive fresh investment in innovative entrepreneurship in both small and large businesses. The financial system in India, in particular, draws private investment from both domestic and international sources. The IT industry develops the society, which includes development. The growth of e-commerce and mobile commerce, the promotion of digital infrastructure for business, the enhancement of digital training and skills, and the use of new technologies. growth in productivity, innovation, and globalisation and workplace digitization.

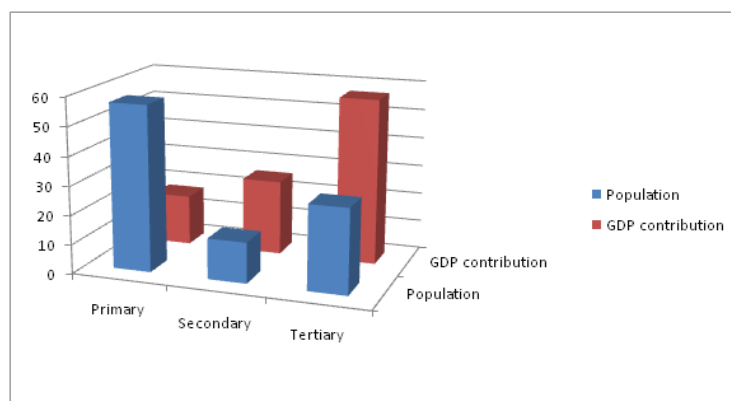


Fig-8 : GDP Contribution Analysis

6. Conclusion

The number of internet users in India is second only to China. The main issue is that the safe M-commerce and E-commerce ecosystems only require users or common people to employ technology in the business. The government is compelled to force technology productivity to be very low due to the growth of technology institutions being limited. India's technology development will be aided by everyone's greater engagement to the digital economy.

References

- [1] <https://en.wikipedia.org/wiki/digitalindia>
- [2] Digital India (2022). Digital India – High Speed Internet Networks to Rural Areas. Retrieved From <https://byjus.com/free-ias-prep/digital-india/>
- [3] Future of India (2014). Future of India the winning leap. Retrieved form <https://www.pwc.in/assts/future/>
- [4] Economic Survey (2018). Union budget. Retrieved form <https://www.indianbudget.gov.in>
- [5] Indian Economy (2019). Indian Economy of the union budget 2019 – 2020 <https://www.indianeconomy.in/wp-content/>
- [6] Kaul,M.,andMathur,P. (2017).Impact of digitalization on Indian Economy and requirement of financial literacy Proceedings of International Conference on Recent Innovations in Engineering and Technology. ISBN: 978-93-86291-63-9.
- [7] Rymarczyk, J. (2019). Technologies, Opportunities and Challenges of the Industrial Revolution 4.0: Theoretical Considerations Centre for Strategic and International Entrepreneurship. 10.15678/EBER.2020.080110
- [8] Singh,P. (2017). Impact of Digitalization on small and medium scale enterprises in India.Indian Journal of Research.ISSN - 2250-1991, 6(4). 2
- [9] MSME tech digitizing small businesses to create 80 billion opportunity for technology providers in five years. Retrieved, May 21, 2020, from <https://www.financialexpress.com/industry/sme/msme-tech-digitising-small-businessesto-create-80-billion-opportunity-for-technology-providers-in-five-years-zinnov-cloudadoption/1791886/>
- [10] Digital India-Mckinsey global institute. Retrieved May 25, 2020, from <https://www.mckinsey.com/mgi/overview>
- [11] India insight : \$10 Trillion GDP. Retrieved June 10, 2020, from <https://www.bloomberg.com/professional/blog/india-insight-10-trillion-gdp-by-2030-notquite-but-almost/>