Digital India: Challenges, Solutions and Its Impact on Society

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Introduction

On July 1, 2015, the Indian government, led by the honourable Prime Minister Narendra Modi, announced the commencement of the digital India campaign. By 2025, it sought to increase digital technology adoption and connection, even in the most remote areas of the Indian economy. Rapid digitalization has had a significant impact on the nation's economic growth, and there are great opportunities for the digital economy to expand even further. This sensible move will not only empower society but also improve our economy's responsiveness, openness, and global market engagement. The Indian economy has seen a significant digital transformation in recent years as a result of the growing use of smartphones, better internet access, digital payment systems, e-marketing, robotic technologies in the industrial and agricultural sectors, sensor embedded infrastructure, etc. It has greatly increased the opportunities for economic growth in the rural and urban sectors of the economy. Numerous initiatives, including the National Scholarship Portal, Bharat, digiLocker, e-education, e-health, e-sign, e-shopping, and others, have been implemented by the Indian government to benefit the people of the nation in terms of time, money, and physical and mental labour.From being knowledgeable, modern society has advanced to being technologically knowledgeable. In many other ways, it has also inspired and connected the Indian economy to a world that has advanced digitally. Through greater financial inclusion, the spread of digital payments in India has made life easier for its citizens. Contactless digital payment systems like BHIM-UPI made it easier for businesses, especially small retailers, to survive the pandemic.

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Objectives

- The present study is an attempt to analyse the impact andchallenges faced in digital transformation of Indian economy.
- To provide the solution to remove barriers in adoption of digitalization.

Research Methodology

The present study evaluates the impact of digitalization by using a strategic tool, SWOT analysis; strengths, weaknesses, opportunities, and threats on Indian economy.

Digital India- A New Age Initiative

Digital India is a programme of Governemnt of India, aimed at strengthening online infrastructure and increasing internet connectivity with a motto "Power to Empower". It not only aims at connecting the whole economy but also as a beneficiary to other government schemes including Make in India, Bharatmala, Sagarmala, Startup India, BharatNet, and Standup India. It focuses on three core areas i.e. providing digital infrastructure, e-governance and digital empowerment of each and every citizen of the society. It also emphasises on inclusive growth by focussing on the nine pillars of growth which are Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, E-governance, E-kranti, Information for All, Electronics Manufacturing, IT-enabled jobs and Early Harvest Programmes. Each of these sectors is a complex programme in itself, involving numerous Ministries and Departments. India ranks among the top two countries in the world in terms of digital adoption, and its digital economy is expected to surpass $1 trillion by 2023. In this direction, GOI is in a process of introducing “Digital India Act 2023” for shaping the future of the economy which aligns with the ever changing digital landscape. Its main aim is to tackle diverse challenges and capitalise on its opportunities having a greater impact on the society as a whole. Some of its favourable impacts include:

- Electronic transactions related to e-governance are increasing. According to government website e-Taal (electronic transaction aggregation and analysis layer), 3.53 billion transactions occurred in 2014, nearly doubling to 6.95 billion in 2015. This demonstrates Indians' desire for technology.
- By the end of September 2022, the Indian government reported that 35.5 lakh route km of Optical Fibre Cable (OFC) had been laid. This will help to meet the increasing demand for higher bandwidth, robustness, and high-volume connection. "Major cities and towns throughout the States/UTs had been well-connected." The BharatNet project is being implemented in stages to bring fibre connectivity to all Gram Panchayats (GPs) across the country.
- In September 2006, a Common Service Centre (CSC) was constructed as part of the Indian government's National e-Governance Project to provide access to information and communication technology (ICT). CSCs use computer and Internet connectivity to deliver multimedia material related to e-governance, education, health, telemedicine, entertainment, and other government and private services. Based on the evaluation of the previous CSE programme, the Government of India launched CSC 2.0 in August 2015 as part of the digital India initiative with a goal to establish at least one CSC in each of the country's 2.50 lakh Gram Panchayats to provide citizen-centric services. It is a self-sustaining business concept run by Village Level Entrepreneurs.
- Another highlight of Digital India Programme is "Digital Village" Campaign which aspires to make every rural citizen digitally literate. The campaign aims at supporting techno-economic viability, creating IT-enabled job opportunities and promoting investment in expanding the base of IT industry in the villages for the balanced regional growth.

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- Internet data is used extensively in the delivery of digital services in all the walks of life. Internet data is widely employed in the delivery of digital services in all walks of life. According to Nielsen's India Internet Report 2023, India had over 700 million active internet users aged 2 and above as of December 2022. Rural India had 425 million users, which was about 44% more than the number of active internet users in metropolitan areas, which had 295 million users.

The aforementioned statements and facts speak volumes about the Indian government's excellent efforts. It has substantially improved government services, increased accessibility, and promoted Indians' digital empowerment. It is projected that by 2025, the Digital India movement might increase GDP by $1 trillion due to its underlying strengths such as efficiency, accessibility, technological innovations, global connectivity, versatility and cost-saving in all the business organisations.No doubt, Indian economy has reached the zenith of digital competency, but still there is a room for improvement by addressing the challenges listed below:

Challenges faced in adoption of Digitalization

Digitalization is one of the most fundamental era of revolution we have ever witnessed. However, there are numerous impediments to its successful deployment, including job displacement, labour upskilling, cybersecurity threats, infrastructure limits, data privacy, and many others. To reap the benefits of this campaign, we must address the following issues:

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- **Digital illiteracy:**With almost 25% illiterate population in India, digital literacy becomes one of the most difficult challenges in achieving digitalization. According to the November 2016 ASSOCHAM-Deloitte report on Digital India, around 950 million Indians are still not connected to the internet. India contains around 1600 different languages and dialects. The lack of digital services in local languages is a significant obstacle to digital literacy.

- **Financial constraints:** Though India is a resource-rich country but still there is a huge problem of investible funds required for the proper adoption and implementation of digitalization. There are numerous issues with advancing funds both internally and externally at a cheaper rate and in the requisite amount. This is a significant challenge since it limits the optimal level of investment in this area.

- **Politico-administrativeconstraints:** Many technical and corporate obstacles develop as a result of the lack of integration among various government departments, such as outmoded work mechanisms, red-tapism, a lack of horizontal and vertical communication connections, the middleman policy, and so on. This archaic and corrupt system is fathomed by all bureaucrats and government officials, which is why they are vehemently opposed to digitization.

- **Security constraints:** There is a global cyber-threat in the form of a lack of expertise, dynamic security management needs, financial concerns, and the possibility of a security breach, and India is not an exception. Not only does the Indian economy face local cyber risks, but it also confronts severe cyber-attacks from countries such as Pakistan and China. As a result, by 2025, the Indian economy would require a strong anti-cybercrime team of approximately 1 million qualified cyber security personnel. According to the National Crime Records Bureau, cybercrime has increased by 24.4 percent in states and union territories. "A total of 65,893 cases were registered under Cyber Crimes, representing a 24.4 percent increase over 2021 (52,974 cases)." This category's crime rate climbed from 3.9 in 2021 to 4.8 in 2022.

- **Infrastructural constraints:**The digital infrastructure in India is grossly inadequate to accommodate the increasing amount of digital transactions. The initiative is hampered by slow and delayed infrastructure construction. Furthermore, constraints such as a lack of a digitally savvy workforce, unequal access to digital infrastructure, and legal flaws, such as a lack of adequate legislation on data protection and intellectual property rights, impede information sharing and confidence in technological adoption.

- **Connectivity to remote areas**: Connecting every village, town, and metropolis is a tremendous endeavour. Because each state has different rules guiding its execution, the issue of connectivity is complicated. According to the Internet and Mobile Association of India (IAMAI) and KANTAR Indian Market Research Bureau (IMRB), rural India has 41% internet penetration compared to 71% in urban areas. However, even in this age of hyper-connectivity, millions of people in our country remain in the shadows, as almost 730 million people, or 51.3 percent, do not have reliable internet connection.

- **Social Barriers:**Individuals' reluctance to accept new technology as a result of cultural and societal factors such as educational and cultural background, language, religion, and economic and political philosophy create hurdles to digital technology adoption. Furthermore, due to the geographically dispersed population, access to ICT infrastructure becomes challenging.

However, in order to fully harness the potential of digitalization, certain stringent actions must be taken up to overcome the serious hurdles it faces in its implementation and adoption. Following are the suggestions in this regard.

Suggestions and Recommendations

- **Collaboration and Co-ordination between Centre and State Government**: To achieve the Digital India targets, however, there must be clear partnership between the state and central governments.Digital India is an umbrella programme that covers multiple projects of various Central

Ministries/Departments and States/UTs. Some of the major initiatives related to public service delivery are Common Services Centres, Unified Mobile Application for New-age Governance (UMANG), e-District Mission Mode Project (MMP), DigiLocker, Unified Payment Interface (UPI), CO-WIN, MyGov, MeriPehchaan, MyScheme, Direct Benefit and Diksha. These programmes have played a significant role in transforming India into a digitally empowered society and a major player in the digital economy. Some state governments have also gone a long way towards digitising their state's services through these projects.

- **Digital Literacy:** For transformative change, the Digital India plan focuses on Indian Talent (IT). The education system should be changed in order to boost students' skill levels. It has been observed that the majority of graduates lack the necessary skill set to be hired in this digital era. The Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) initiative, launched in 2017, aims to make six crore rural households digitally literate by providing them with access to digital devices, internet connectivity, and digital literacy training. As a result, it is the obligation of every citizen to reap the benefits of this effort.

- **Training Centres and Helpdesk:** Since bulk of the village population lacks digital awareness thus, a special training should be given to them at village level through setting up of helpdesks. It will raise awareness and bridge the gap between technologically challenged consumers.

- **Development of secure and stable digital infrastructure:**Internet connection, like electricity networks and natural gas production, is critical to the operation of modern society. Unfortunately, many organisations still regard digital connectivity as a luxury rather than a necessity. To close the digital divide, this thinking must shift. It is critical for government bodies to design solutions that not only boost connection for rural and distant areas, but also secure long-term access. The internet's importance in society is unlikely to diminish. As a result, governments and organisations will need to consider developing more durable networks and architecture.

- **Strong Cyber Safety Mechanism:** Though Government of India has taken many initiatives to address cyber security threats such as The Indian Computer Emergency Response Team (CERT-In), Cyber Surakshit Bharat, National Critical Information Infrastructure Protection Centre (NCIIPC), Chief Information Security Officers (CISOs), Personal Data Protection Bill, Cyber Swachhta Kendra (BotNet Cleaning and Malware Analysis Centre), National Cyber Security policy and The Digital India Act. But still their strong implementation is lacking which is witnessed in increasing the number of cybercrime cases. Thus, it becomes imperative for the government of India to find loopholes in the system and rectify them as early as possible so that people can readily enjoy the new-age technology.

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- **Overcoming Social Resistance to Digital Transformation:** To resolve this issue, it is important to sensitize all the stakeholders regarding vision and benefits of digital transformation and its expected outcomes. For this,

  i. Different methods and channels such as newsletters, videos and workshopsshould be used to reach different target audience and address their concerns.
  ii. Feedback, ideas and suggestions should be taken frequently from the users for removing the ambiguities.
  iii. And, providing training and access to resources and tools for increasing their digital engagement.

Conclusion

The digital revolution is reshaping India's economic environment, opening up new opportunities for innovation and wealth. Thanks to a large and tech-savvy population, government support, and a thriving corporate ecosystem, India is poised to continue its journey towards becoming a digital superpower. Under the broad spectrum of digital transformation in India, the introduction of Artificial Intelligence (AI) comes with the unveiling of the Indian Government's National Strategy for Artificial Intelligence (NSAI) in 2018. It has greatly benefited the entire corporate community as well as consumers. It has also resulted in the rise of a new era of banking, new marketplaces, and digital ecosystems, which has increased the number of job prospects in India, particularly for the lower-income group.

In short, we can conclude thatdigitalization in Indian society opens up numerous prospects in a variety of areas. It can improve education access through online learning, healthcare delivery through telemedicine, and financial inclusion through digital banking. Furthermore, e-governance projects can help to streamline government services, while digital platforms can help to empower small enterprises and stimulate entrepreneurship. Overall, embracing digitalization has the potential to contribute to India's economic growth, social empowerment, and enhanced quality of life.

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