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Impact of Digitalisation on Rural India

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Abstract

Digitalization is to the process of changing information into a digital format. It involves the adoption and use of digital technologies to transform business processes, activities, and models. Here are key aspects of digitalisation. Converting analog information, such as text, images, and sounds, into digital formats that can be processed and stored electronically. Utilizing digital technologies such as computers, smartphones, software applications, and networks to automate tasks, improve efficiency, and enable new capabilities. Applying digital technologies to innovate business models, streamline operations, enhance customer experiences, and create new revenue stream. Facilitating instant communication and connectivity through digital channels such as email, messaging apps, social media, and video conferencing. Managing and analyzing large volumes of data (big data) to derive insights, make informed decisions, and personalize services. Automating repetitive tasks and processes through digital tools and technologies to increase productivity and reduce costs. Implementing measures to protect digital assets, data, and privacy from cyber threats and unauthorized access. Influencing how individuals interact, communicate, work, learn, and consume information in a digital-first world. Digitalisation is not just about adopting technology but also about leveraging it strategically to drive innovation, competitiveness, and growth across various sectors of society and the economy. It is a fundamental aspect of the broader digital transformation sweeping across industries globally. The purpose of this paper is to understand digitalisation and its impact on rural India.

Keywords: *Digitalisation; Ecommerce; Internet of Things.*

1. Introduction

The era of digitalization refers to the period in history marked by the widespread adoption and use of digital technologies across various aspects of society, economy, and culture. This transformation has fundamentally changed how information is created, accessed, stored, and shared. Key elements rapid advancements in computing power, internet infrastructure, and telecommunications have enabled the digital revolution. This includes the development of smartphones, cloud computing, artificial intelligence, and the Internet of Things (IoT). Traditional industries such as retail, finance, healthcare, and entertainment have been disrupted by digital technologies. E-commerce, online banking, telemedicine, streaming services, and digital content creation are all examples of how digitalization has reshaped economic activities. Digitalization has influenced social interactions, communication patterns, and cultural norms. Social media platforms, online communities, and digital communication tools have connected people globally while also raising new challenges related to privacy, identity, and information security. digital era has transformed education and the workforce. Online learning platforms, digital classrooms, and remote work technologies have

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become increasingly prevalent, offering new opportunities for learning and employment but also requiring new skills and competencies. Big data analytics, machine learning, and predictive modeling have enabled organizations to derive insights, make data-driven decisions, and personalize services. While digitalization has brought numerous benefits such as efficiency, convenience, and innovation, it has also raised concerns about digital divides, cyber security threats, data privacy, and the impact on traditional industries and employment.

2. Impact of Digitalization

Digitalization has brought significant impacts on rural India across various aspects

Positive Impacts

1. **Access to Information:** Digital platforms have enabled rural residents to access information on government schemes, healthcare, education, agriculture techniques, and markets more easily.
2. **Financial Inclusion:** Through digital banking and payment systems (like UPI), rural communities have gained access to formal financial services, reducing dependency on cash and enabling easier transactions.
3. **Agricultural Development:** Farmers can now access weather forecasts, market prices, and expert advice through apps, improving crop management and market decisions.
4. **Education and Skill Development:** Digital learning platforms have extended educational opportunities in remote areas, offering courses and resources that were previously inaccessible.
5. **Healthcare Services:** Telemedicine has made healthcare more accessible, allowing rural residents to consult doctors remotely, receive diagnoses, and access medical information.
6. **Entrepreneurship:** Digital platforms have facilitated the growth of rural enterprises by providing market access, e-commerce opportunities, and business networking.
7. **Government Services:** Digitalization has streamlined the delivery of government services such as issuing documents, subsidies, and welfare benefits, reducing bureaucracy and corruption.
8. **Employment Opportunities:** Digital platforms have created job opportunities in fields like IT support, data entry, content creation, and online sales, reducing rural-urban migration.
9. **Infrastructure Development:** The need for internet connectivity has spurred infrastructure development, including broadband expansion and mobile network coverage in rural areas.

Overall, digitalization has been transformative for rural India, offering new opportunities for economic growth, education, healthcare, and quality of life improvements.

Despite these benefits, challenges like digital illiteracy, connectivity issues, and disparities in access persist, requiring targeted interventions and policies.

Negative Impacts

While digitalization brings numerous benefits, it also has some negative impacts, particularly in the context of rural areas and society at large:

1. **Increased Inequality:** Digitalization can exacerbate existing inequalities between those who have access to technology and those who do not. Rural areas often lag behind in access to digital infrastructure and devices, widening the rural-urban digital divide.
2. **Job Displacement:** Automation and digitalization can lead to job losses, particularly in sectors where manual labor is replaced by technology. This impact can be felt more acutely in rural areas where traditional livelihoods like agriculture and small-scale industries may be affected.
3. **Digital Dependency:** Over-reliance on digital platforms for essential services such as banking, healthcare, and education can disenfranchise those who are not digitally literate or do not have access to reliable internet connectivity.

4. **Privacy and Security Concerns:** Increased digital transactions and data sharing raise concerns about privacy breaches, identity theft, and cybercrimes, especially in areas with low awareness and understanding of cyber security practices.
5. **Cultural Erosion:** Digital media and globalization can contribute to the erosion of local cultures and languages as global content and trends dominate online spaces, potentially marginalizing indigenous knowledge and traditions.
6. **Health Impacts:** Excessive screen time and digital device use can contribute to physical health issues such as eye strain, musculoskeletal problems, and disrupted sleep patterns, affecting overall well-being.
7. **Environmental Impact:** The production and disposal of electronic devices contribute to environmental degradation through resource extraction, energy consumption, and electronic waste generation, which can pose environmental challenges if not managed properly.
8. **Digital Divide Reinforcement:** Despite efforts to bridge the digital divide, digitalization can reinforce socioeconomic disparities if not implemented inclusively, leaving marginalized communities further behind in access to opportunities and resources.
9. **Misinformation and Disinformation:** Digital platforms can amplify the spread of misinformation and disinformation, leading to social polarization, distrust in institutions, and undermining of democratic processes, particularly in rural areas with limited media literacy.
10. **Technological Dependence:** Over-reliance on technology for everyday tasks can reduce traditional skills and knowledge, potentially weakening resilience to disruptions such as power outages or internet downtime in rural areas.

Addressing these negative impacts requires a balanced approach that promotes equitable access to digital resources, enhances digital literacy, ensures cyber security measures, and safeguards cultural diversity and environmental sustainability in the digital age.

The gap between rural and urban digitalization in India is significant and influenced by several factors:

1. **Infrastructure Disparities:** Urban areas generally have better infrastructure such as reliable electricity, high-speed internet connectivity, and mobile network coverage compared to rural areas where such infrastructure is often lacking or unreliable.
2. **Digital Literacy:** Urban populations typically have higher levels of digital literacy due to better access to education and exposure to technology from an early age. In contrast, rural populations may have limited exposure to digital devices and skills training.
3. **Access to Devices:** Smart phones and computers are more prevalent in urban areas, whereas rural areas may have lower ownership rates due to affordability issues and limited availability of devices.
4. **Language and Content:** Most digital content and services are available in English or major regional languages, which may not be accessible or relevant to rural populations who primarily speak local dialects.
5. **Economic Disparities:** Urban households generally have higher incomes and purchasing power, making it easier to afford digital devices and data plans compared to rural households where affordability is often a barrier.
6. **Digital Services and E-commerce:** Urban areas benefit from a wider range of digital services, including e-commerce platforms, online banking, and digital entertainment, which are less accessible or less utilized in rural areas.
7. **Government Initiatives:** While there are government initiatives to bridge the digital divide, the focus and resources may disproportionately favor urban areas, leaving rural communities underserved.
8. **Entrepreneurship and Employment:** Urban areas offer more opportunities for digital entrepreneurship and employment in sectors like IT, digital marketing, and e-commerce, which may not be as accessible in rural areas.

9. **Healthcare and Education:** Urban areas have better access to digital healthcare services and digital learning platforms compared to rural areas, which face challenges related to connectivity, digital literacy, and resource availability.

Reducing the gap between rural and urban digitalization requires targeted efforts such as expanding digital infrastructure, promoting digital literacy programs tailored to rural needs, ensuring affordability of devices and data plans, localizing content in regional languages, and fostering digital entrepreneurship in rural communities. Government policies and private sector initiatives play crucial roles in addressing these disparities and ensuring equitable access to digital opportunities across the country.

Digital India has played a pivotal role in the socioeconomic upliftment of rural people in several ways:
In our country digitalisation has positively changed the remotest and isolated villages. Leading them to interact and learn from rest of the world. But there is still lag between urban development and rural its due to lack of digital literacy and availability of infrastructure to support digital initiatives. After digital revolution technology has been used in majority of sectors it such as transport, communication, education, health care, citizen services, financial services, etc. It has made a huge difference in socio-economic upliftment of rural people. It of nation as a whole and inclusive growth. Digitalization has bridged the urban-rural divide by empowering rural communities with access to information, markets, financial services, education, healthcare, and employment opportunities. This has contributed significantly to their socio-economic development, improved living standards, and overall development.
Key initiatives undertaken by MeitY under Digital India programme across the country is as follow

Aadhaar: Aadhaar provides 12 digit biometric and demographic based identity that is unique, lifelong, online and authenticable.
SITAA — Scheme for Innovation & Technology Association with Aadhaar
Common Services Centres – CSCs are offering government and business services in digital mode in rural areas through Village Level Entrepreneurs (VLEs).
DigiLocker: Digital Locker provides an ecosystem with collection of repositories and gateways for issuers to upload the documents in the digital repositories.
MyGov – It is a citizen engagement platform that is developed to facilitate participatory governance.
MeriPehchaan – National Single Sign-on (NSSO) platform called MeriPehchaan has been launched in July 2022 to facilitate / provide citizens ease of access to government portals.
Digital Village: MeitY has also initiated the 'Digital Village Pilot Project" in October, 2018. 700 Gram Panchayats (GPs)/Village with atleast one Gram Panchayat/Village per District per State/UT are being covered under the project.
National Knowledge Network: A high speed data communication network has been established to interconnect Institution of higher learning, and research.
Pradhan Mantri Gramin Digital Saksharta Abhiyaan (PMGDISHA): The Government has approved a new scheme titled "Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)" to usher in digital literacy in rural India by covering 6 Crore rural households (one person per household)
Unified Payment Interface (UPI) is the leading digital payment platform.
Digital payment transactions have significantly increased as a result of coordinated efforts of the Government as a whole, along with all stake holders concerned, from 2,071 crore transactions in FY 2017-18 to 8,840 crore transactions in FY 2021-22 (Source: RBI, NPCI and banks).

- **Volume Growth:** From 92 crore (FY 17-18) to over 13,116 crore (FY 23-24), showing a 129% CAGR; early FY 24-25 already saw ~7,062 crore transactions (Apr-Aug).
- **Value Growth:** Surpassed ₹200 lakh crore in FY 2023-24, with a ~138% CAGR from ₹1 lakh crore in FY 17-18.
- **Market Share:** Accounts for ~80% of all retail digital payments in India.

- **P2M Dominance:** Person-to-Merchant (P2M) transactions are key, making up over 62% of volume, with most being small-value payments (under ₹500), showing strong user trust for daily needs.

Technology Incubation and Development of Entrepreneurs (TIDE 2.0)

TIDE 2.0 will promote tech entrepreneurship through financial and technical support to incubators engaged in supporting ICT startups primarily engaged in using emerging technologies such as IoT, AI, Block-chain, Robotics etc. in pre-identified areas of societal relevance.

3. Contribution Of Digital India In Education

Through digitalisation quality and affordable education got accessible to the remotest corner of the country irrespective geographical boundaries. With at most conveniency and as per individuals capability and pace. Government has taken various intiatives under digital education programme:

Government initiatives for digital literacy include PMGDISHA to make rural populations digitally literate, the broader Digital India campaign which promotes digital infrastructure and services, and online educational platforms like DIKSHA and SWAYAM. Other efforts include the use of Common Service Centres (CSCs) to provide digital access and training, state-level programs, and skilling initiatives like the Pradhan Mantri Kaushal Vikas Yojana.

- **The National Mission on Education through Information and Communication Technology:** for online teaching and learning.
- **SWAYAM portal:** for online courses at the school (9th to 12th) to Postgraduate Level.
- **SWAYAM Prabha**: there are 32 DTH channels.
- **The National Digital Library of India (NDL):** it is repository of learning resources with a single-window search facility.
- **E- Pathshala** it provides e-content for learning.
- **DIKSHA platform**: for e-content for school level education.
- **PM eVIDYA** it unifies all online education modes.
- **The Digitally Accessible Information System (DAISY)** by the National Institute of Open Schooling (NIOS) for differently-abled students.

4. Role of Private Sector in Digitalisation

Private sector innovations have also helped in expanding the scope of digital private sector innovations have also helped in expanding the scope of digital services. For instance, the strategy of clubbing almost free smartphone devices with service subscriptions by Reliance Jio led to a huge growth in mobile data access as well as consumption. This rise in internet penetration and smartphone ownership has shown positive implications with respect to domestic e-commerce which is expected to reach INR 7 lack crore by the year 2024, almost doubling by 2027. The grocery and fashion sectors are the main drivers of this digital economic growth, the private sector has made some pertinent efforts in addressing these challenges to India's digital economy. One of these is the USD 10 billion initiative announced by Google in 2020 called the 'Google for India Digitisation Fund', Google also partnered with Jio's platforms to promote development of more affordable smartphones for consumers. Amazon has also invested $ 1 billion to integrate 10 million small as well as medium enterprises online by facilitating their transition to online platforms, along with provision of warehouses, cataloguing, imaging, etc. it is crucial for higher private investments to enter the space of digital economy as only then will it be possible for the funding to enter pertinent areas of development in a multiplied manner. The private sector, thus, with the help of the fostering policy environment created by the government, needs to harness technology in an inclusive manner. Such advances also have substantial

potential of bringing India closer to achieving the Sustainable Development Goals (SDGs) by the years 2030, contributing to bridging the gap between under-digitalised and hyper-digitalised countries, leading to a more just and equitable future.

5. Conclusion

Digitalisation holds significant promise for transforming rural India by improving access to information, financial services, education, and market opportunities. However, addressing infrastructure gaps, promoting digital literacy, and ensuring the security and inclusivity of digital solutions are crucial for maximizing the benefits of digitalisation in rural areas. Government initiatives, private sector involvement will be key in overcoming challenges and fostering sustainable development through digital technologies in rural India.

References

Business Standard. (2019, January 8). 33.66 crore bank accounts opened under Jan-Dhan Yojana. https://www.business-standard.com/article/news-ians/33-66-crore-bank-accounts-opened-under-jan-dhan-yojana-119010801202_1.html

Goswami, H. (2016). Opportunities and challenges of Digital India programme. *International Education and Research Journal, 2*(11), 78–79.

Ministry of Agriculture and Farmers Welfare, Government of India. (2013). *M-kisan portal – mobile based services for farmers*. http://mkisan.gov.in/images/Detailed%20Write%20up%20on%20mKisan.pdf

Mukhopadhyay, D., & Mandal, A. K. (2019). Smartphone, internet and digitalization in India: An exploratory analysis. *PRAGATI: Journal of Indian Economy, 6*(2), 22–43.

Press Information Bureau, Government of India. (2023, December 14). *Digital India initiatives*. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1885962

Press Information Bureau, Government of India. (2023, July 26). *Digital India programme achieves significant milestones*. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1843061