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Challenges for the Development of Digital Platforms in Rural India During the Pandemic



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ABSTRACT

India has emerged as one of the fastest digital adopters among various developing countries. Digital India Program in 2015 triggered many improvements for the digitalization of the rural area of India. Creation of digital infrastructure in the rural area is one of the three visions of the program. Even though India has made tremendous progress in virtual platforms, there are important issues that limit the establishment of the digital infrastructure in rural India. The covid-19 pandemic brought forth the urgent need for the growth of digital platforms in rural India because the goods and services are transported mainly through digital platforms during the pandemic. This paper explores the existing issues for the growth of the digital platforms in rural India and identifies the key factors for improving the digital empowerment in rural India. In the present study, the primary data is collected through the interview method from the selected participants and secondary data is taken from various published journals, newspapers and government websites. The study is based on the nine pillars of the Digital India Program.

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1.0 INTRODUCTION

India has very successful story in digital revolution compared to many other countries. India holds remarkable achievement in improving digital platforms. Digitalization enabled the country to tackle the various issues of the COVID-19 pandemic situation. Prime Minister Narendra Modi started the Digital India programme on July 1, 2015, with the goal of making India's people wealthier while also giving them better access to information and autonomy over their own lives. A flagship initiative of the Indian government, it aims to make government services more accessible to all residents by

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decreasing the expenses and bureaucracy involved in providing them (Chakraborty, 2020). Designed to turn the country's economy into a knowledge-based one that is digitally enabled, it is a promising concept. An enormous number of ideas and concepts are brought together into a single, overarching picture by the software, making it possible to view them all in relation to one another.

1.1 Digital India Program

Digital India's objective is to create a digital framework for participatory governance that is easy to use by making all official certificates and documents available on the Cloud with mobility (Kedar, 2015). By emphasising digital literacy, digital resources, and collaborative online platforms, the Digital India effort hopes to transform India into a digitally equipped society. Providing digital services in the native languages of Indian citizens is another goal of this initiative (Anooja, 2015). The epidemic has aided the Digital India mission in its penetration into the everyday lives of Indians.

1.2 The Vision and Nine Pillars of Digital India

The Digital India programme aims to transform India into a knowledge-based economy and a digitally enlightened society. The three key objectives of India's transformation are digital infrastructure as a fundamental service for all citizens, government and services accessible on demand, and citizen digital participation (Mohanta *et al.*, 2017; Kumar & Elamathi, 2020; Gaur and Padiya, 2016).

Digital Infrastructure as a Core Utility to Every Citizen: In the Digital India vision, "digital infrastructure as a utility for every person" is one of the primary focuses. In the first vision, the availability of high-speed broadband is the primary priority. The government is envisaging fastest internet connection in all through the country. With the implementation of internet access to all citizens all over the nation it can empower the nation with the help of digital platform.

Governance & Services on Demand: Government services should be available in the local area, via common service delivery outlets, and at reasonable pricing to the general public. This is the ultimate goal. Governments at both the federal and state levels are taking a variety of steps to give citizens with access to a wide range of services through digital platforms.

Digital Empowerment of Citizens: The third vision is very important for the implementation of the digital India program. This vision gives focus on connecting the whole nation through the digital world. Digital platform can transcend all the demographic and culture barriers. The aim of the government is to have at least one person e-literate at every home.

Digital India program is built on nine pillars such as broadband highways, universal access to mobile connectivity, public internet access program, E-governance – reforming government through technology, e-Kranti - electronic delivery of services, information for all, electronics manufacturing, IT for jobs, and early harvest programs (Sharma, 2016). Digital India program has transformative potential across the country (Mohanta *et al.*, 2017; Beriya, 2021).

It is the primary goal of this programme to restructure rural regions such that they are resource-oriented and technologically competent. Over two-thirds of India's population and the bulk of its labour reside in rural regions, making the Indian economy predominantly rural. Rural India contributes 46 percent of the nation's total revenue to the overall net value added in different industries. By 2050, more than half of India's population is expected to remain rural, despite the country's growing urbanisation, with 833 million people living in 640,867 villages (Kumar & Elamathi, 2020). Thus, growth and development of the rural economy has large scale impact on the

development of the country. Therefore, digitalization in rural India has a key role for the sustainable development of the country.

Digital platform is a virtual space that provides facilities for the users to collaborate, interact and transact. It enables interaction in digital environment. It can be any electronic tool for communication such as laptops/desktops, mobile phones, social media, mobile applications, and credit cards (Bonina *et al.*, 2021). It can be a combination of digital tools and services. Digital platforms ensure numerable development opportunities for various segments of the population. Digital platforms are the foundation for innovation, economic growth, and competitiveness (Bonina *et al.*, 2021). Digital platforms help to overcome the challenges related to geographical distance, guaranteeing equal opportunities regardless of where people live. Access to modern digital platforms and their services are vital for rural communities in India (Saini and Singh, 2021). Digitization has made it easier for rural Indians to access essential services like as e-government, banking and financial services, education and healthcare, online ticket booking, and shopping online, among many others. Aadhaar has become the first digitally enabled and most widely used identity card in India. This is the largest digitalized unique identity card in the world (Vijayan, 2019; Jindal *et al.*, 2019). As a result of digital technology, all government services and information are accessible from anywhere, at any time, and on any device (Rathod, 2016). It is very evident that digitization has brought substantial improvement in all age groups both men and women.

Although multiple schemes are being implemented India has not achieved the required success in the digitalization. Still there exists a wide gap between and rural and urban digital infra structural facilities (Saini and Singh, 2021). The current study aimed to provide a rural perspective on digital innovation, with focus on the opportunities and challenges faced by 'Digital India' program. The study investigated in the context of three visions and nine pillars set by the 'Digital India' Program. The study gives importance for the implementation of digitalization in rural areas of the nation.

1.3 Objectives

- The objective of the study is to explore the impact of digital platforms in rural India.
- To examine the effect of the digital India programme in rural areas.
- To identify the challenges of implementation of the Digital India programme in the villages.

2.0 METHODOLOGY

Data was gathered from primary and secondary sources in order to conduct a qualitative research study. From the semi-structured interviews with the study participants, as well as several published journals, newspapers and the government websites, the main data was gathered. In the Ernakulam district, four Grama panchayaths were studied. According to the statistical data available from the Department of Economics and Statistics of Government of Kerala there are 84 Gramapanchayths in Ernakulam district. The researcher selected four Gramapanchayaths by convenient sampling from the district of Ernakulam which has same shared characteristics. The researcher chose 5 participants who are in the age group of 20-40 years from each Gramapanchayath by random sampling method and total 20 potential participants were identified from the four selected Gramapanchayaths. In total 13 participants were males, and 7 participants were females. After identifying the 20 selected participants the researcher directly contacted them to get the informed consent for the research. Semi structured questions were utilized to gather the data from the research

participants. The questions were formulated on the basis of three visions and nine pillars of Digital India, and it is validated by the experts. Considering the covid-19 pandemic situation the researcher used virtual platform for the interview. One on one interviews were done with 20 participants. The personal interviews aided the researcher to gather relevant information about the impact of digital India program in Gramapnachayaths. Thematic analysis was used to derive the themes from the interviews conducted.

3.0 FINDINGS

It is very evident that digital platforms already created more opportunities and enabled the common people to receive and provide services through digital technology. A good number of respondents pointed out that digital technologies accelerated growth, expanded their opportunities and enhanced service delivery. Many participants reported that digital platforms helped them to overcome their physical barriers and costs. Some of the respondents confided that digital platform helped them ease of doing things. Most of the participants shared that they are able to make universal phone connection, to access e-Governance services, online class for the students during the pandemic, e-booking, online shopping, online payments, and telemedicine with the help of the digital platforms. This finding appeared to be associated with the study of [Sharma \(2016\)](#) which found that “digital platforms digitally connecting and delivering the government and private services to mobilize the capability of information technology across all the sectors”.

From the interviews the researcher identified certain problems of the rural population in dealing with digital platforms. Digital illiteracy was demonstrated by majority of the participants. A good number of participants experiencing barriers when it comes to the knowledge and skills required to access various digital platforms and services. Majority of the respondents admitted that they are not able to access and operate many applications because of their lack of sufficient knowledge. Various studies already revealed that the primary issues in the rural India is digital illiteracy ([Nedungadi et al, 2018](#)). Some of the participants complained about the unavailability of the digital platforms in their own local languages. [Kumar & Elamathi \(2020\)](#) reported that “non-availability of digital services in vernacular languages causes a great barrier in digital literacy”.

Another important factor the researcher found from the interview that the rural population experience poor connectivity. Most of the participants reported about interrupted connectivity, low bandwidth in using digital platforms. They complained that the digital platforms are not accessible and not reachable due to poor connection. Participants demonstrated a strong preference for improving the connectivity. Researchers already pointed out that to have connectivity with each and every village in India is a mammoth task ([Dahiya, 2018](#); [Anooja, 2015](#))

They also experience inadequacy of infrastructures such as electricity, phone connectivity, towers, and optical fiber cables. Studies posited that the “biggest challenge faced by Digital India program is the slow and delayed infrastructure development ([Vanita, 2017](#); [Midha, 2016](#))”. Some participants shared that they became the victims of online scams and they experienced insecurity in digital transactions. Participants revealed that they are reluctant to use the digital platforms due to data insecurity and privacy protection. Study already stated that fear of privacy and safety has been deterrent in embracing the digital platforms ([Dahiya, 2018](#)).

It was also identified during the interview that some of the respondents do not have sufficient digital devices for the digital use. They talked about struggles to buy the digital gadgets due to higher price. Previous studies already described about digital gadgets and internet services are costly for an average Indian citizen. When rural people do not have enough money for the basic needs of their life

spending more money for digital gadgets is not possible (Sheokand and Gupta, 2017; Mohanta *et al.*, 2017).

Some of the participants complained about the unavailability of the service providers for giving proper guidelines in using the digital platforms. These findings also attuned with the previous studies that mentioned about the insufficient availability of the needed service providers like government offices and service platforms creates peoples into illiteracy (Sheokand and Gupta, 2017).

4.0 DISCUSSIONS

One of the primary issues identified in the current study is digital illiteracy in the rural population. In spite of the implementation of multiple schemes in the rural sector lack of digital literacy remains the main barrier of achieving the goals (Saini and Singh, 2021). Because of the digital illiteracy significant number of rural residents unable to access and use to digital platforms for their daily needs (Saini and Singh, 2021). The govt. should focus on improving technical abilities and skills of the individuals in rural India. Schemes should be designed to make digitally competent citizens in rural area. Empower the rural people in e-Literacy must be the top priority.

The primary data of the current study manifested that the villages of India face a powerful digital infrastructure shortcoming. This is supported by findings of Kumar and Elamathi (2020) concluded that India lacks digital infrastructure. India needs more investment and high attention to digital infrastructure in rural area. The country needs more Wi-Fi-hotspots especially in rural areas (Malhotra, 2018). There should be more use made of government infrastructure like post offices and other buildings to provide digital services. A variety of digital frameworks should be developed by the government to improve infrastructure. According to research, rural and isolated regions' digital infrastructure should be supported by the private sector (Dahiya, 2018).

The authorities should provide sufficient resource persons to educate the rural population how to make digital platforms useful for their daily use and enable them to access the digital resources and information. Special attention is needed for data security, data protection and guidelines. Rural population should know how to secure their online data (Dahiya, 2018). Significant efforts are required to customize apps and services to cater the rural people. A good number of rural people are still reluctant to go for cashless financial transaction (Dahiya, 2018). The government should take initiatives to remove the existing stigma among the rural population for the virtual transactions. The urgent priority is to make the internet accessible, open, safe for all rural people (Anooja, 2015). The government should plan and promote electronic development fund for product development and make available the digital gadgets for the rural population at affordable price.

The qualitative feedback of the present study emphasizes that specific programs should be implemented to close the existing digital divide between urban and rural area. A collaboration of central and state government is necessary for the implementation of the program.

4.1 Limitation of the Study

The current researcher focused only on qualitative analysis and the primary data was gathered from only 20 participants of four Gramapanchayaths of Ernakulam district for the current study. The research analysis is done with only limited research data.

5.0 CONCLUSION

In the current research, it was shown that individuals living in rural areas lack access to necessary resources, which leads to several issues. Digital gap exists in rural India due to the lack of access to development in rural areas. As a result, rural digitalization has to be a top concern. It's a significant issue that has to be addressed quickly and efficiently.

REFERENCES

- Anooja, A., (2015) "Digital India with E-Commerce Revolution in Rural India: Transform India Digitally and Economically", *Engineering International*, 3(2), pp. 57-64. <https://doi.org/10.18034/ei.v3i2.190>.
- Beriya, A. (2021) "Digital India Programme: Going Full Circle", ICT India Working Paper, Columbia University, Earth Institute, Center for Sustainable Development (CSD), New York, NY. Available at <http://hdl.handle.net/10419/249845>.
- Bonina, C., Koskinen, K., Eaton, B., & Gawer, A., (2021) "Digital platforms for development: Foundations and research agenda", *Information Systems Journal*, 31(6), pp. 869-902. <https://doi.org/10.1111/isj.12326>.
- Chakraborty, A., (2020) "Identification of Public Sentiment Over Comments Through Tweets by Digital India", *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(7), pp. 9661-9694.
- Dahiya, A., (2018, Jun) "Transforming India into a Digitalized Society: Major Challenges and Opportunities", *KAAV International Journal of Economics, Commerce & Business Management*, 5(2), pp. 29-33.
- Gaur, A. D., & Padiya, J., (2016) "A Study Impact of 'Digital India 'in 'Make in India' Program in IT & BPM Sector", In Fourteenth AIMS International Conference on Management, (pp. 325-331).
- Jindal, N., Thakur, K., & Sharma, T., (2019) "Digital India: Challenges, Solutions and Its Impact On Society", *International Journal of Environment, Ecology, Family and Urban Studies (IJEFFUS)*, 9(2), 83-90.
- Kedar, M. S., (2015) "Digital India New Way of Innovating India Digitally", *International Research Journal of Multidisciplinary Studies*, 1(4), pp. 34-49.
- Kumar, S. K., & Elamathi, K. (2020) "Digital India: Impact and Challenges on Rural India", *Advances in Science & Technology*, 69, pp. 1-9.
- Malhotra, C., (2018) "Enhancing Citizens' Participation in the Processes of Governance: Digital India and MyGOV", *Revue Internationale des Gouvernements Ouverts*, 7, pp. 193-198.
- Midha, R., (2016) "Digital India: Barriers & Remedies", In Proceedings of the International Conference on Recent Innovations in Sciences, Management, Education and Technology (pp. 256-261).
- Mohanta, G., Debasish, S. S., & Nanda, S. K., (2017) "A Study on Growth and Prospect of Digital India Campaign", *Saudi Journal of Business and Management Studies*, 2(7), pp. 727-731.
- Nedungadi, P. P., Menon, R., Gutjahr, G., Erickson, L., & Raman, R. (2018) "Towards an Inclusive Digital Literacy Framework for Digital India", *Education + Training*, 60(5), pp. 516-528. <https://doi.org/10.1108/ET-03-2018-0061>.
- Rathod, K. R., (2016) "Cloud Computing-Key Pillar for Digital India", *International Journal of Information*, 6(1/2), pp. 27-33.
- Saini, N., & Singh, P., (2021) "A study of rural area towards the growth of Digital India in Post COVID 19 Pandemic", *PalArch's Journal of Archaeology of Egypt/Egyptology*, 18(7), pp. 2101-2106.
- Sharma, J., (2016) "Digital India and its Impact on the Society", *International Journal of Research in Humanities & Soc. Sciences*, 4(4), pp. 64-70.

- Sheokand, K., & Gupta, N., (2017) "Digital India Programme and Impact of Digitalisation on Indian Economy", *Indian Journal of Economics and Development*, 5(5), pp. 1-13.
- Vanita & Sachdeva, K., (2017) "Digital India- Opportunities and Challenges", *International Journal of Engineering Research & Technology (IJERT)*, 5(11), pp. 1-6.
- Vijayan, A., (2019, Mar) "Digital India - A Roadmap to Sustainability", *International Journal of Innovative Technology and Exploring Engineering*, 8(5), pp. 571-576.