

**A STUDY ON THE LEVEL OF DIGITAL AWARENESS AMONGST THE RURAL POPULATION OF INDIA WITH SPECIAL REFERENCE TO THE VILLAGES OF MADHYA PRADESH (MP) AND CHHATTISGARH (CG)**

**Mrs. Rani Thakur**

Research Scholar, Amity School of Communication, Amity University Jaipur

**Dr. Saket Raman**

Assistant Professor, Mahatma Gandhi Central University Motihari, Bihar, India

**Abstract:**

Digital awareness or digital literacy is the prerequisite for the survival and success in 21<sup>st</sup> century. Digital awareness is not limited to occupation or area or income. Due to the quick spread of digitalization, it has also the life of rural people of India. Yet, due to various factors namely, unavailability of network, lack of digital knowledge and financial resources, unawareness about the technology etc., an important part of the rural population is still resisting in adopting the various subsidies of digitalization. In the present study, the researcher tries to find out the factors behind the level of digital awareness among the rural population of India. The study also depicts the numerous measures taken by Indian government in creating digital awareness amongst rural people and the impact of these measures on the standard of living of them. For the accomplishment of above-mentioned objectives, both primary and secondary data was used. A self-designed questionnaire consisting of 40 questions was got filled by 400 respondents of eight villages of MP and CG. Descriptive analysis was applied to analyze on the collected data. The result of the study is categorized in Internet friendliness, availability of Device to access internet, Awareness of Digital India Campaign, Awareness of Digital initiatives in your village, and Accessibility of Public WIFI.

**Keywords:** Digital India Campaign, Digital Awareness, Digital Literacy, Rural Population, Information and Communication Technology (ICT)

**Introduction**

Every country is generally categorized in two parts, namely rural and urban. Both the parts of country plays an important role in the development of that particular country. Yet, they are intensely alienated on the basis of income, culture, technology, and availability and affordability of resources. Due to digital revolution and measures taken by Indian Government, the technological gap is diminishing day by day. According to Nielsen Report (2023), number of internet users of rural India is 44 percent more than the urban India. In the words of government, 'rural' means any area with a population of under 5,000 and population density of less than 400 per sq km, with more than 25% of the male population engaged in agricultural pursuits. This report also indicates that there is a vital increase in the usage of online banking and digital payments in India, with an unexpected growth rate of 43 percent.

Digital revolution also came with the concept of global village. Marshall McLuhan prophesied the global village as one world interconnected by an electronic system that make it part of our popular culture before it actually happened. He was the first person to promote the concept of

a global village and to consider its social effects. (Understanding Media, 1964). Rural India is an inseparable part of the Indian economy as it contributes about 46% of the national income. About 66% of India’s population is rural and even due to the rapid increase of urbanization, rural India is still marking its presence in the country’s growth and development for the next decade also.

Even after the growing number of internet users in rural India, there is a significant digital divide between urban and rural India. According to TRAI report 2022, internet penetration in rural India was only about 33% compared to 99% in Urban India. This gap is mostly due to two factors, namely, lack of infrastructure and awareness.

To overcome the above dissimilarity, the Indian government has launched the “Digital India” programme. The efforts of Indian government to create digital awareness was started on 1st July 2015 by launching Digital India Campaign. Digital India campaign was launched with the motive that the Government's services are accessible by every citizen electronically and through improved online infrastructure and by improved Internet connectivity. The implicit objective behind this campaign was to make India digitally empowered. The campaign includes various plans that connect rural regions with high-speed internet networks. The three fundamental components of this initiative were the development of protected and stable digital infrastructure, delivering government services digitally, and universal digital literacy.

Some of the initiatives undertaken by GOI as a part of this campaign to boost rural digital infrastructure are highlighted below.

Initiatives	Description
Bharatnet	Aims to provide broadband access to 250,000 Gram Panchayats (GPs) through a network of Optical Fiber Cable
Common Service Centers	CSCs are centers through which e-governance and related services will be made available to villages
Universal Access to Mobile	Aims to provide mobile access to more than 55,600 villages that do not have mobile coverage
Digitization of Post Offices	Digitization of post offices including setting up centralized data centers, networking of all post offices and enabling digital payments

Although there are number of measures taken by Indian Government to make Digital India, some of the ongoing awareness campaigns are as follows:

- *E-Cabinet*

It is an extension of e-Governance. The characteristics of this application is to prevent the user from sharing it with anyone. Additionally, there is safety to the data as it is password-protected unlike in the conventional method where papers could easily be taken away from the member of the Cabinet by anyone.

- *e-Pragati*

E-Pragati is a composite application launched with a motive to provide 750 services to over 30 million citizens by integrating 34 departments on a single platform. The motive behind this initiative is to computerize all departments and services in the state. Accordingly, the citizens

will have a seamless service experience as they no longer have to go to government offices and can access the services from anywhere in the world.

- Bhudhaar

It is an E-Governance project intended to assign an 11 Digits unique number to everyone belongs to Andhra Pradesh. The objective behind this initiative is to address issues in land record management.

- e-Panta

It is the first electronic platform introduced in India to know the exact reality of the crop details and to scrutinize the crop pattern across the Andhra Pradesh state.

### **Impact on Rural India**

The impact of above-mentioned efforts of GOI on rural India is slow but sure. Some of the major affected areas on Indian economy are as follows:

- Financial Inclusion: Digital India campaign accelerated through various schemes, namely *Digital India*, *Direct benefit transfer*, *Rupay*, *UPI payments* etc. enhanced the financial inclusion in India. The Jan Dhan–Aadhaar–Mobile not only developed banking sector in rural areas but also improved financial literacy among the rural people. Direct benefit transfer (DBT) decreased the gap between rural people and GOI and speeds up the distribution of subsidies, pensions, and other benefits under various schemes.
- E-Governance: Numerous projects by GOI like Kisan Call Centres, Jagriti E-Sewa, e-District, Common Services Centres (CSCs), Mobile Seva, etc., have resulted to better service delivery, transparency and accountability, and led to improvement in government efficiency. All these led to next phase in the Indian economy's growth.
- Education: Measures by Indian Government like Pradhan Mantri Gramin Digital Saksharta Abhiyaan PMGDISHA have been launched with the motive of making six crore people in rural India digitally literate. This objective is on the way through numerous e-education projects like Massive Online Open Courses (MOOCs) and Swayam.

Although, the collaborating efforts of Indian Government and rural population is leading towards the path of success, yet there are some factors that are proving as obstacles in its success. Therefore, it is very necessary now to know and understand what else can be done to improve the level of digital awareness among rural population.

### **Significance of the study**

In today's era, along with education literacy, digital literacy or digital awareness is also became an integral part of the growth of an individual as well as of the economy. The rate of digital literacy has been accelerated due to the digital revolution and various factors associated with it, namely easy availability and accessibility of the internet even in rural areas, increase in social media usage, user friendly applications and so on. But these factors are unevenly distributed amongst the urban and rural India. Therefore, this study is an attempt to understand the factors and their impact on the awareness level of digital literacy among Rural India.

### **Objectives of the study**

1. To study the effect of digitalization on the level of awareness of rural public and their decision making.
2. To understand the role of digital awareness in the Rural India.

### **Literature Review**

To have an in-depth acquaintance about the various dimensions related to the digital awareness among rural population, various previous studies have been studied. Some of the most important and contributing studies are being quoted here.

**Internet World Stats** (2020, June 7) an international website that updates research data and population statistics examine in their report titled *Digital divide, ICT and Broadband internet* that the digital divide is not necessarily determined by the access to the internet, but by access to information and communication technologies (ICT) and media that the different segments of society can use concerning internet. The quality of internet connection and its related services should also be considered. The most important factor is the availability of access at an affordable cost and quality. It can be said as the rural accessibility to the internet is an indicator of the Digital Divide in rural areas. Use of power lines and satellite communications after new possibilities of universal access to the internet and the lack of telephone lines will not limit access. It was also suggested that lower access prices should be there to bridge the ICT divide.

**Vijayan (2019)** discussed that the emergence of internet in rural livelihoods eliminated the difference between rural and urban livelihoods and also grown up their education system as well. At last, author concluded that so far Digital India Campaign has been successful as it has shown positive results in terms of GDP growth, employment opportunities, educational aspects, and in technological development as well.

**Lawani (2018)** in his study “Digital Empowerment for Inclusive Growth & Sustainable Development” defines the concept of inclusive growth for sustainable development. He concluded without proper digital literacy the dream of digital India is not possible. PMGDISHA is good initiative of government towards digital literacy and if it implemented properly it will help India to go digital. Lack of finance and lack of infrastructure are two main challenges for digital literacy and need to be resolved in order to make this scheme successful.

**Kumar, Prdhi, and Arora (2017)** have conducted a study to explore the impact of digitalization on the development of Rural India, under the study authors explained about various benefits of digital India programme initiated by government of India for rural areas. With the emergence of Digital India programme rural entrepreneurs are being more empowered as they can get easy loans under MUDRA Yogn to set up Common Service Centre (CSCs) points at village level, they can also start Internet/cyber-kiosks to be a local entrepreneur, and women are also getting health care services by Arogyasakhi Application.

**Bhatia and Kiran (2016)** conducted research on “Rural Development through E-Governance initiatives in India” and described about the status various e-governance projects such as Kissan Call Centres, E-chaupal, Gyandoot, TATA Kissan Kendra, Akashganga, and Jagriti E-Sewa.

The study considered e-governance as a tool of bridging the digital gap of developing countries such as India. Various initiatives by government in ICT sector such as Digital India campaign helped in the development process. With the emergence of Digital India campaign rural people have been more connected with government of India through contact in single click.

**Agarwal Sangita (2016)** in Role of ICT in Rural Development of India analyse that information technology 'has emerged as a key driver and accelerates economic growth and development'. She suggests that 'Policymakers behind that digitization can help the sustained development of rural economy as its impact on production operation and expansion of the market and this reshape the rural economy'.

**Mishra (2013)** in his study concluded that ICT influences e-Health, Internet plays key role in accessing health related information. E-Health services in rural areas can minimize cost of treatment. E-Health can have several positive impacts like remote consultation, diagnosis and treatment, sharing of knowledge and training among health workers, monitoring patient from distant and quick treatments.

**Chauhan (2012)** The author discussed the role of IT in agricultural development and agriculture management education. According to author IT applications can help farmers to access the information which can improve the productivity. These applications can provide information about agriculture input, modern agricultural productivity also it can educate to farmers who are willing and ready to adopt new agricultural techniques. Author says knowledge is always helpful. There exist various areas of specialization, viz. agro input, crop production technologies, agro processing, market support, agro finance and management of agro-business. These are highly specialized areas where knowledge on relevant field helps the farmers.

**Chitla (2012)** the author concluded the role of ICT in poverty reduction and rural development. As ICTs result in globalization, which again results in opening of world markets for the consumers of various segments. With the advancement of ICTs, people have choices due to this the level of competition in the market. Consumer satisfaction and development of product as per the need of the consumers is the focus of the market. This also affects life of rural people. Various ICT schemes can improve social and economic well-being of the people of rural areas. ICTs can play a dominant role in education, income generation, healthcare etc. ICTs can improve governance in rural areas. This will surely improve easy implementation of various social welfare schemes like Direct Benefits Transfer (DBT), which are meant for the rural poor.

**Memdani (2012)** in her study on "Digitalization of Rural India and its Impact on Rural Economy" discussed about numerous impacts on rural economy which are the results of digitalization. Improvement in income due to proper utilization of Internet sources in farming, increased employment opportunities through getting jobs in Internet Kiosks in rural areas, expansion in level of e-literacy as rural youth perceiving training about the computer as well as internet usage and also the level of English language communication skills is also improved in rural areas. At last, author concluded that now Indian peasants have moved from the illiterate and traditional roles.

**Mukherjee Sushmitha (2011)** in Application of ICT in rural development; opportunities and challenges, focuses on communication as the major component and driving force in rural development. The study states that, 'all forms of communication have dominated the

development scene in which its persuasive role has been most dominant within the democratic political network of the country'. Technological advancement further heightened the rural development due to the spread of information and communication technology.

**Sharma (2011)** in his study find out the impact of information technology on rural development. The paper also studied about various ongoing projects meant rural development. He concluded that there is lack of transparency about government projects and initiatives and rural population are not very involved with these projects. He suggested that there is a need to create the awareness first before implementing the projects. Apart from that the main issue is lack of proper infrastructure. For proper implementation of ICT projects, there is a need to provide adequate supply of electricity, proper communication set up and many more. Without these basic facilities and infrastructure these projects cannot make significant difference in rural sectors.

### **Research Method**

This section explains the research approach and the methods applied by the researcher in collecting, preparing and analysing the data.

As per the requirement of the study, the researcher selected mixed method research approach for the collection of data. The study is largely based on primary data which is collected by a survey of 8 villages of two states (Madhya Pradesh & Chhattisgarh) and a case study research method is used to generate an in-depth understanding of India's first Digital Village Akodara (Gujarat).

Secondary data is also used in the study which is collected from various sources including previous research works related to the study, journal articles, newspaper, various government offices and websites.

#### *Research instrument:*

A Schedule that consists of 40 questions is designed in which 39 questions are closed-ended while 1 question is open-ended descriptive in nature.

The sample for the data collection is villages, where there is a possibility of many illiterate people who cannot understand and fill the questions by themselves so the researcher chooses schedule instead of the questionnaire. Also in the schedule, there are chances of high accuracy and better response rate.

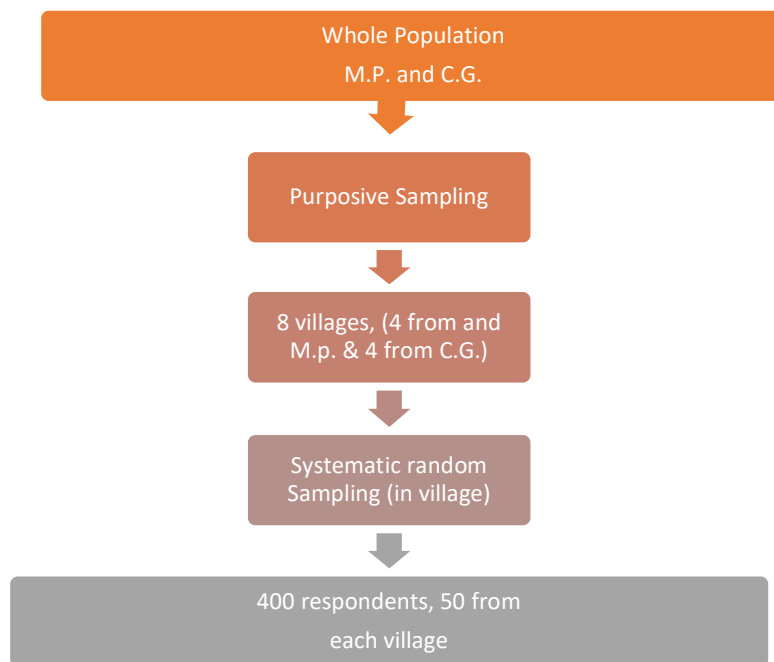
#### **Sampling:**

The research is specific in nature so researcher selected 4 villages from each state (M.P. & C.G.) in which two villages are digitally rich and other two are comparatively backward.

#### **Village selection:**

Purposive sampling method is used for the selection of the village.

#### **Sampling Techniques**



**Analysis of Data:** Analysis of collected data is done by using SPSS software. Where researcher tested the Hypothesis and presented results in the result and discussion section.

#### Data Analysis and Discussion

In this section researcher tries to evaluate and present digital awareness of rural areas including internet usage, WIFI accessibility, awareness about various digital initiatives for rural areas, their purpose of Internet usage etc. the results are given below.

**Table 1: Internet friendliness**

Internet Friendly	STATE							
	Digitally Rich				Digitally poor			
	M.P.		C.G.		M.P.		C.G.	
	Kharadi a	Badhjh iri	Silphi li	Jora	Kukawa li	Semaly a	Seetaramp ur	BadeBend ri
Yes	88%	92%	90%	92%	50%	40%	26%	34%
No	12%	8%	10%	8%	50%	60%	74%	66%

Total	100%	100%	100%	100%	100%	100%	100%	100%
-------	------	------	------	------	------	------	------	------

Source: Survey data

Figure 1: Internet friendliness

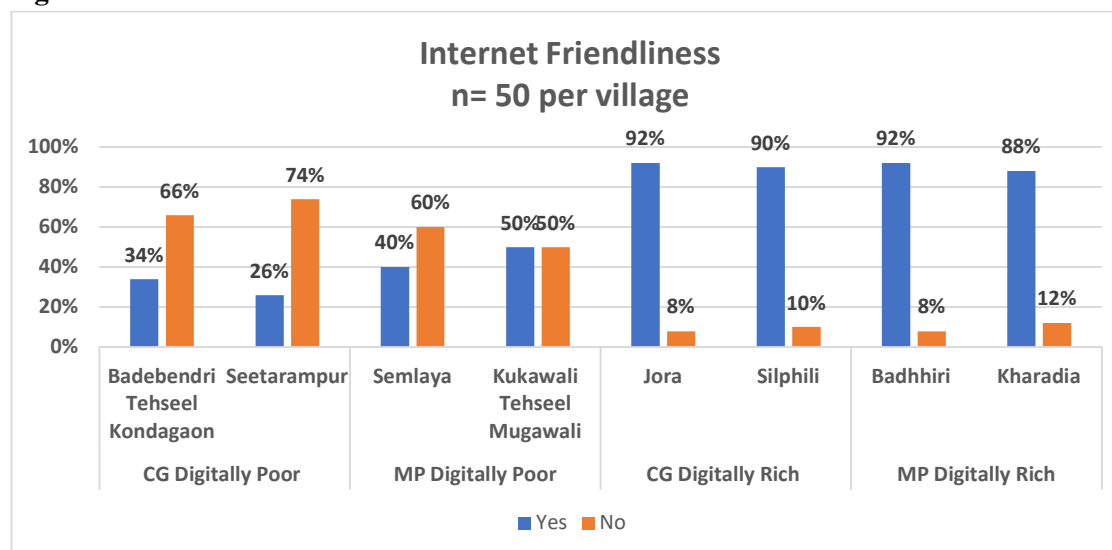


Figure 1 and Table 1 shows the results of internet friendliness of respondents. It is observed that in Kharadia 88% of respondents are internet friendly while 12% of respondents do not use internet. In Badhhiri 92% respondents are internet friendly while 8% respondents do not use internet. In Silphili 90% respondents are internet friendly and 10% respondents do not use internet. In Jora 92% respondents are internet friendly and 10% respondents do not use internet. In Kukawali 50% respondents are internet friendly and 50% respondents do not use internet, In Semlaya 40% respondents are internet friendly and 60% respondents do not use internet, In Seetarampur 26% respondents are internet friendly and 74% respondents do not use internet, In Badebendri 34% respondents are internet friendly and 66% respondents do not use internet.

Table 2: Device to access internet

Device to access Internet	Digitally Poor Village (n = 200)		Digitally Rich Village (n = 200)	
	No Respondents	of Percentage	No Respondents	of Percentage
Smartphone	70	35%	138	69%
Smartphone and Computer	3	1.50%	10	5%
Smartphone and Laptop	1	0.50%	10	5%
All	1	0.50%	23	11.50%

Figure 2: Device to access internet



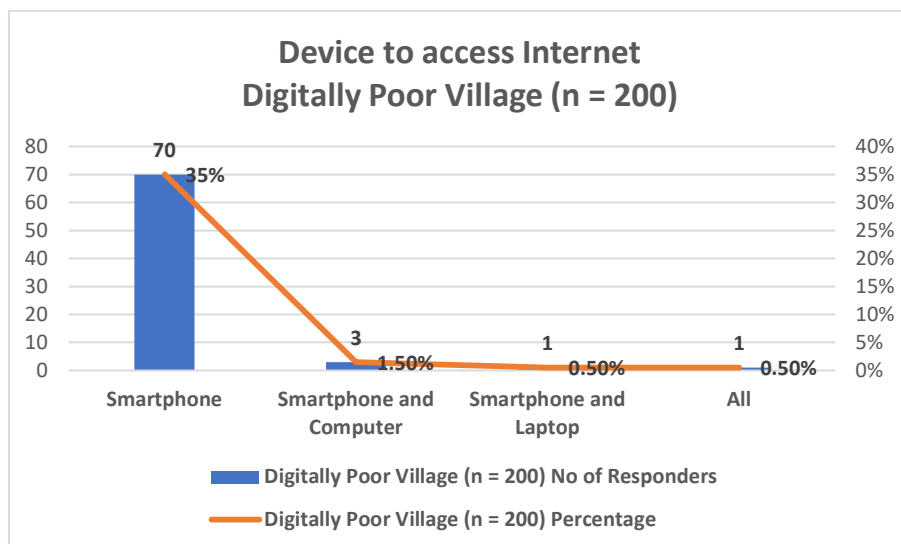


Table 2 and Figure 2 show distributions on the basis of devices used for internet access. It is revealed in digitally rich villages 69% respondent access internet by smart phone, 5% access through smart phone and computer, 5% access through smart phone and laptop and 11.5% access through all the three devices.

In digitally poor villages 35% of respondent access through smart phones, 1.5% access through both smart phone and computer and 0.5% access through smart phone and laptop and 1% access internet through all the three devices.

**Table 3: Awareness of Digital India Campaign**

Know about Digital India Campaign	Digitally Rich		Digitally poor	
	F	Percentage	F	Percentage
Yes	110	55%	57	28.5%
No	90	45%	143	71.5%
Total	200	100%	200	100%

Source: Survey data

Figure 3: Awareness of Digital India Campaign

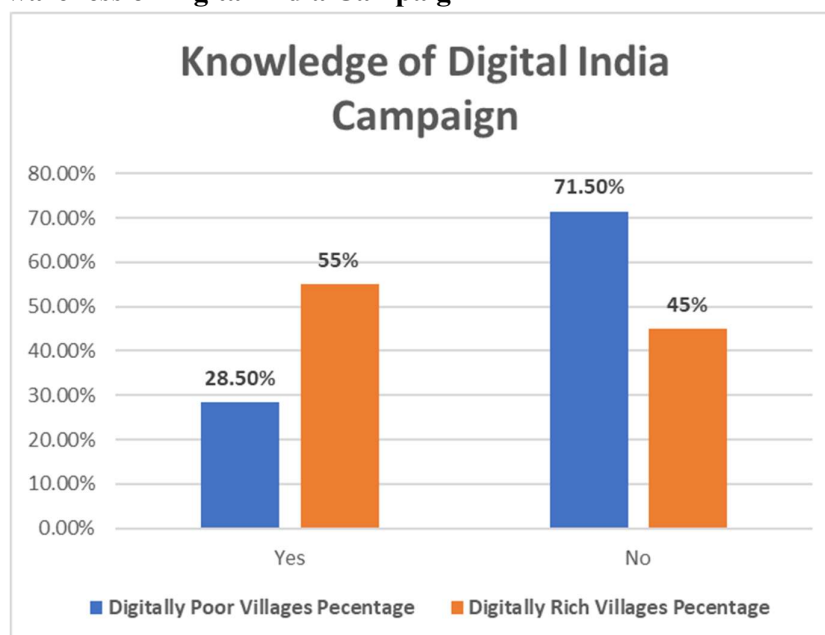


Table 3 and Figure 3 show distribution on the basis of their awareness about digital India campaign. In digitally rich villages 55% of respondents are aware of digital India Campaign and 45% respondents are not aware of digital India campaign. In digitally poor villages nearly 29% respondents are aware of digital India campaign and nearly 71% do not have any awareness about digital India campaign. The result shows the difference in awareness about the campaign both the categories but in both the categories a huge portion is unaware of digital India campaign.

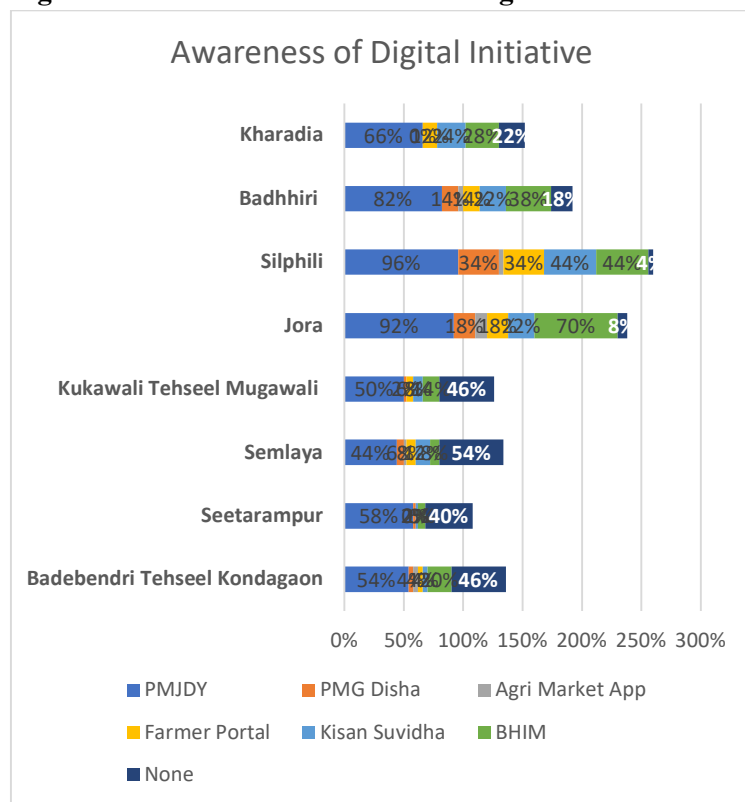
Table 4: Awareness about various digital initiatives in all villages

	Category								
	Digitally Rich				Digitally Poor				Mean
	M.P.		C.G.		M.P.		C.G.		
Badh jhjiri	Khad aria	Silphi li	Jora	Kuka wali	Sema lya	Seeta ramp ur	Badeb endri	N=8	
<b>PMJDY</b>	82%	66%	96%	92%	50%	44%	58%	54%	33.87
<b>PMG Disha</b>	14%	0%	34%	18%	2%	6%	2%	4%	5.00
<b>Agri Market App</b>	4%	0%	54%	10%	0%	2%	0%	4%	4.62
<b>Farmer Portal</b>	14%	12%	34%	18%	6%	8%	0%	4%	6.00
<b>Kisan Suvidha</b>	22%	24%	44%	22%	8%	12%	2%	4%	8.62

<b>BHIM</b>	38%	28%	44%	70%	14%	8%	6%	20%	14.25
<b>None</b>	18%	22%	4%	8%	46%	54%	40%	46%	9.55

Source: Survey data

Figure 4: Awareness about various digital initiatives in all villages



Government of India introduced several schemes, programmes, applications and other digital platforms for rural areas. Researcher tried to study few important schemes and their awareness in villages.

Table 4 and Figure 4 show awareness of some of the important digital schemes and applications in all eight villages. It is revealed that in Badhhiri, 82% respondents are aware of PMJDY, 14% are aware of PMG Disha, 4% are aware of agri-market app, 14% are aware of farmer portal, 22% are aware of Kisaan Suvidha, 38% are aware of BHIM and 18% of respondents are not aware of any them.

In Kharadia 66% are aware of PMJDY, no respondents is aware of PMG Disha and agri market app, 24% respondents ar aware of kisaan suvidha and 28% respondents are aware of BHIM, and 22% respondenst are not aware of any of them.

In Silphili 96% respondents are aware of PMJDY, 34% are aware of PMG Disha, 4% are aware of agri market app, 34% are aware of farmer portal, 44% are aware of kisaan suvidha, 44% are aware of BHIM and only 4% respondents are not aware of any of them.

In Jora 92% respondents are aware of Pradhan Mantri jhan Yojna (PMJDY), 18% respondents are aware of Pradhan Mantri Gramin Digital Siksha Abhiyan(PMG Disha), 10% are aware of Agri Market app, 18% are aware of farmer portal, 22% are aware of kisaan Suvidha, 70% are

aware of Bharat Interface for money app (BHIM) and 8% of respondents are not aware of any of them.

In Badebendri 54% respondents are aware of PMJDY, 4% are aware of PMG Disha, 4% are aware of Agri market app, 4% are aware of farmer portal, 4% are aware of kisaan suvidha, 20% are aware of BHIM and 46% are not aware of any of them.

In Seetarampur 58% are aware of PMJDY, 2% are aware of PMG Disha, no respondent is aware of agri market app and farmer portal, 6% are aware of BHIM and 40% of respondents are not aware of any of them.

In Semalya 44% respondents are aware of PMJDY, 6% Disha, 2% are aware of Agri market app, 8% are aware of farmer portal, 12% are aware of Kisaan Suvidha, 8% are aware of BHIM and 54% are not aware of any of them.

In Kukawali 50% are aware of PMJDY, 2% are aware of PMG Disha, no respondents is aware of agri market app, 6% are aware of farmer portal., 8% are aware of kisaan suvidha, 14% are aware of BHIM and 46% are not aware of any of them.

It is observed that even in digitally rich villages there is lack of awareness of these important initiatives due to which rural people are not get benefited from these schemes and applications. This concludes that there is urgent requirement of making efforts towards awareness of these programs, applications and schemes in order to make them successful and to ensure full benefits to rural population. It is revealed that PMHDY is one of the most popular schemes (mean = 33.87) among both the categories followed by BHIM (14.25). Other applications are still not popular in rural areas. All eight villages more or less following same pattern in terms of awareness of these initiatives.

### **Conclusion**

In a developing country like India, implementation of Digital technologies in rural areas is not an easy task. It requires a robust infrastructure which is not available in most of the villages. In terms of digitalization and adoption of new technologies India is growing day by day but this growth is very slow in rural parts of the country because utilization of new technologies is mainly restricted to urban areas. Rural parts are not well structured to get fully benefited from the concept of digitalization.

It must be noted in India 70% of population lives in rural areas so development of country is not possible without developing rural areas but the idea of development of urban parts cannot be implemented in rural areas. On the one hand where urban population are following online trends and utilizing hundreds of mobile applications for daily needs like shopping, billing, bookings etc. the rural areas are lacking internet connectivity and basic infrastructure which supports them to become a part of digital world. In both areas (urban and rural) challenges and solutions are different and different approach required for making the country Digital. Again apart from Urban and rural difference, the divide is present in village level also. As the study focused in two categories digitally rich and digitally poor it is clear the trends of digitalization varies village to village. So implementation of digital technologies cannot be done in same manner in all rural parts. In some rural areas lack of awareness is the main issue but in other lack of infrastructure or connectivity are the major problems. It can be said digital divide present in village level. Some villages are better than other so different types of efforts are

required as per their need. Hence skill analysis is required in every district and man power should be developed as per requirement.

### **Limitations of the Study**

- This campaign of digital India is still young so there may be variation in results in future.
- At the time of data collection there is problem in Communication with some respondents and to make them understood few basic terms of the study like Digitalization and ICT.
- The study is limited to Madhya Pradesh and Chhattisgarh state. In future there is scope of studying the other states too.
- The study involves only 8 villages as sample, if the sample size of villages would increase, then it may provide better directionality of results.

### **Suggestions for future Study**

- The study is limited to two states, in future other states can be studied and impact of digitalization can find out in other states also. Also, only four villages selected from each of the state, in future there is scope of studying other villages major exploration can be done.
- The study is focused on two categories digitally rich and digitally poor. In future there is scope of exploring the villages which belongs to average category that is neither digitally rich nor digitally poor.

### **References**

- Agarwal Sangita (2016 May). Role of ICT in Rural Development of India. EPRA International journal of economics and business review. E-ISSN-2347-9671. P-ISSN-2349-0187, Vol-4.issue-5. May 2016. [www.epratrust.com](http://www.epratrust.com)
- Internet World Stats (2020). The digital divide, ICT, and Broadband Internet, ICT-Communication Technologies. June 7. [www.internetworldstats.com](http://www.internetworldstats.com)
- Sushmitha Mukherje (2011). Application of ICT in rural development opportunities and challenges. Global Media Journal -Indian edition/ISSN2249-5835 winter issue/December 2011. Vol.2 /No.2 .[www.caluniv.ac.in](http://www.caluniv.ac.in)
- McLuhan, Marshall, 1911-1980. Understanding Media; the Extensions of Man. New York : Signet Books, 1964.
- <https://economictimes.indiatimes.com/tech/technology/rural-india-pips-urban-india-in-internet-usage-with-44-more-users-report/articleshow/98704031.cms>
- <https://www.smsfoundation.org/how-is-digital-awareness-propelling-rural-development-in-india/>