

## STATUS OF DIGITALIZATION AND IMPACT OF TECHNOLOGY IN BARWADAG VILLAGE: A SOCIOLOGICAL STUDY IN RANCHI DISTRICT OF JHARKHAND

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### ABSTRACT

The Information & Technologies play an important role in rural development. The Empowerment of rural communities is crucial for the development of the rural region. Bringing the people of rural region in the mainstream of the digital technologies to access and adopt modern technologies is a major concern now, approximately 70% of Indian Population lives in Rural Areas. Today, Rural Development is essential for the development of the Indian. This paper aims to explore the current impact of Technology and the need of Digitization in

Barwadag Village in Ranchi district in India. This paper uses quantitative research techniques data collected through directly participating on the field gained through questionnaire and face-to-face personal interviews conducted with Barwadag village people to explore the problems and prospect of Digitalization and Technology implementation affect relationships and sociability. The report has found the main problems that need to be tackled are as People were not much literate, most of them are educate up to class 8th very few have done higher secondary education and the Government hadn't started acting on the implementation of digitalization & technology in the village. Today, every nation wants to be fully digitalized but this program strives to provide equal benefit in the rural areas. Here, Digitalization gives a very rosy picture. But it is not so, there are large number of problems and challenges ahead. It can only be transformed with the development and implementation of information technology scheme and good governance.

### KEY WORDS:

Digitalization, Impact of Technology, Digital India, Rural Development.

### INTRODUCTION:

The world we live in has been changing quickly with the development of the ubiquitous Society bringing forward extraordinary advantages and opportunities together with new difficulties. The ability to create and utilize information plays a critical role in both socioeconomic structures of our lives.

'Digitalization' is the integration of digital technologies into everyday life by the digitization of everything that can be digitized. The significance of digitalization gives a clear thought of development and

technology dependent world.

A substantial number of studies have demonstrated that even today approximately 70% of Indian Population lives in Rural Areas. Today, Rural Development is fundamental for the development of the Indian. Indian Government has realised the part of the rural development and the contribution of I.T. in the advancement of Rural Areas. The digital world that we live in today is that where every citizen has a brilliant prospect to change the lives in numerous points of view that were difficult to imagine only a few years back.

Today, every nation needs to be fully digitalized that will empower society in a superior way. "Digital India" is a campaign launched by the Government of India to guarantee that Government services are made accessible to citizens electronically by enhancing online infrastructure and by expanding Internet connectivity or by making the nation digitally empowered in the field of technology. It was launched on 1 July 2015 by Prime Minister Narendra Modi. The initiative incorporates plans to connect rural areas with high-speed internet networks. Digital India comprises of three core components. These include the formation of digital infrastructure, Delivery of services digitally and Digital literacy.

The Government of India plans to accomplish development on different fronts with the Digital India Programme. In particular, the government aims to target nine 'Pillars of the Digital India' that they recognize as being: Universal Access to Mobile Connectivity, Broadband Highways, e-Governance – Reforming Government through Technology, Public Internet Access Programme, eKranti - Electronic conveyance of services, Electronics Manufacturing, Information for All, Early Harvest Programmes and Digital or IT for Jobs.

## REVIEW OF LITERATURE

Santhanamuthu. D. & Manickam S., (2012) The rise of India as a worldwide player in IT, software development and call center operations is one side of an information revolution that has likewise started to affect on governance and development at a domestic level in areas such as e-health, e-governance and e-commerce. The private, state and civil sectors have put resources into various activities all through of India went for extending the benefits of the information revolution to rural and remote areas. The state keeps on putting resource into digitalization.

According to mid-term evaluation of eleventh plan period, broad physical target in telecom segment for the rural India is to give 100 million rural telephone connections by 2010 and achieve 200 million connections by 2012 that is to accomplish rural tele-density of 25 per cent. Because of the entry of private sector in the telecommunication sector, rural area also getting advantages of telecom revolution in India which is a welcoming sign of inclusive development in India. The growth of the Information, Communications Technology (ICT) sector has changed the way we live and the way that business is being conducted at all levels. It has helped India in making a knowledge society. The development of ICT into all sectors will help to accomplish the Eleventh Plan objectives of inclusive development, empower us to accomplish our objectives in health care and education, as well as in achieving social benefits to the intended beneficiaries amongst the socially and economically weaker sections. It likewise holds incredible potential in spreading knowledge and awareness to the rural sector, especially to the farm sector and empowers it to improve productivity and incomes through the adoption of better social practices, greater awareness of the situation in markets and prices and enhance information about the management of pests and the constraints from climate-related events. A digital divide has emerged in terms of internet and broadband connectivity between the urban and rural India and policy has to address this issue decisively.

## THEORETICAL FRAMEWORK

Theoretical Framework is very much essential to understand any research problem properly. It helps to drive the research viably. Numerous scholars built up their thoughts on the impact of Digitalization. Some related theories are mentioned below:

### **THE FUNCTIONALIST THEORY**

In the mid-twentieth century, functionalist scholars such as Charles Wright and Harold Laswell focused on the ways in which the impact of digitalization function in incorporating society. The functionalist scholars Denis McQuail (2000), a few of the most essential social elements of the media those are correlation, Information, continuity, mobilization and entertainment. In this theory he said that the media has a function in expressing the dominant culture, recognising new social advancement and producing common values. A leading proponent of functionalist theory saw society as being in a natural state of equilibrium. By “equilibrium” He meant that society inclines toward a state of stability or balance. Parsons would see even prolonged labour strikes or citizen revolts as temporary disruptions in the status quo rather than as critical adjustments in social structure. He said that all are positively functional. Each things of society are positively functional.

### **MEDIA DETERMINISM THEORY**

Marshall McLuhan surprised the whole world in 1964 with his statement that “the medium is the message” (1965, p.7). He aforementioned that “the effects of technology do not occur at the extent of opinions of ideas, however, alter sense ratios or patterns of perception steady and without resistance”. Marshall McLuhan is said that the foremostvital impact of the communication media is that they have an effect on our habits of perception and thinking. The idea of “sense ratios” refers to the balance of sight, taste-but technologies, and particularly the communication media, have caused individuals to emphasize one over others stressed vision. In turn, it influenced our thinking, creating it linear, sequential, regular, repeated, and logical. It allowed individuals to separate thought from feeling. It LED to specialisation and technology, however it additionally LED to a way of alienation and individualism. On the social level, print LED to the likelihood of states and therefore the rise of nationalism.

### **STATEMENT OF THE PROBLEM**

Without problem, no analysis has been done. Once problem arises individuals believe its solution. In daily life, we've got to face varied issues. Within the field of digitization and its impact on rural areas. Individuals have varied issues that are taken into consideration through this study. After consultation various literatures published in the field of digitalization. India as well as Indian situation the present case study is an earnest attempt to determine the real state of affairs prevails in major rural areas. Within the dynamic setting of digitalization are lack behind of national development after finding the gap of development in digitalization systems the concealing issues are accounted during this study through a case study of major rural areas.

Digitization has become a sensible necessity and reality with technology interventions to supply improved access to data sources, preservation and dissemination as needed, at any time; anyplace and anywhere as it were. Besides, digitization narrows down the “Digital Divide” between the have and have-not within the country, between individuals, developing and developed countries, those who can speak English and those who cannot, digital elite in urban and rural in terms of digital development itself (Murthy, 2005).

If data is crucial to development, then digitalization, as a way of sharing data, isn't merely an affiliation between individuals, however a link within the chain of the event method itself.

### **RESEARCH METHODOLOGY**

This study adopted an interpretive analysis strategy which allows a researcher to interact with a social group being studied likewise as enable the researcher to observe and record the processes of decision making and social practices.

**A. RESEARCH OBJECTIVES**

- ✳ Identify the Need for Digitalization.
- ✳ Identify the impact of Technology and Digitalization in rural areas.
- ✳ Identify opportunities associated with digitalization.
- ✳ What are the future scope prospects towards the implementation of Digitalization in rural areas?
- ✳ Identify the basic problems towards implementation of Digitalization.

**B. RESEARCH HYPOTHESIS**

- ✳ As many rural people are less educated, they have less idea about the information and technology.
- ✳ Most of the Rural people belongs to BPL, by which they can't afford electronics media.
- ✳ Increasing interdependence between urban and rural areas process of urbanization makes the traditional distinction between rural and urban increasingly blurred.
- ✳ By not getting digital access their potential and opportunities are lagging behind.
- ✳ The problems arise of Digitalization in rural areas due to failure of government public policy.

**C. UNIVERSE/POPULATION OF THE STUDY**

Under this survey, the different tools and techniques has been applied which are basically questionnaire and personal interview. As a case study of problems and prospect of digitalization implementation and development. Quantitative research techniques is used in this study.

**D. RESEARCH DESIGN**

The research design which will be followed for this study is exploratory research design. This design will be used to gather information from the rural area people. In explanatory research – survey method will be tailored for collection of data from primary and secondary sources. The design is a systematic empirical enquiry within which we've got direct control on independent variables. The current study follows the necessity of digitalization in rural areas. Hence, the research design which is opted is exploration in nature.

**E. SAMPLING AND ITS SIZE**

Social science surveys involve large number of people and vast scattered area have to be carried out on the basis of sample procedure. It is difficult to go in for study of the entire population so, the random sampling method was chosen for this study. The random samples of the respondents have been collected in the form of questionnaire.

**F. METHOD OF DATA COLLECTION**

The methods used in collecting information for this study consisted of semi structured personal interviews, targeted group interviews.

**PRIMARY SOURCE:**

Primary information is to be collected by the researcher directly from the respondent and their family members. I.e. collect by means of Questionnaire form used in interview schedule. It is also acquired through direct observation and interviews. Data is collected by directly participating on the field.

**SECONDARY SOURCE:**

Secondary data is to be collected from various sources, such as- various literature on technology, publications different types' journal, newspaper, magazines, books, Internet etc. The information collect through the interview schedule survey has been compiled for analysis through a standard data entry form.

**DESCRIPTION OF THE VILLAGE-BARWADAG**

Barwadag village is 45 KMs away from Ranchi, 10 KMs from ANGARA Block, Ranchi –Purulia

Highway, it comes under Barwadag Panchayat. The Rural Population is 1129. The villages are Underdeveloped & most of the people have Mud House. Tribal Population is more in the village & rural migration is evident in the village. Use of alcohol is evident in the village-Hadia and Mahua. Unemployment rate is high & Most of the People are under BPL category. Source of Drinking water (Tubewell) and Well but some Tubewells are not functional. Television/Mobile/Electricity-Symbols of Modernity and Modernization. Rural Poverty is one of the important feature of the village. Major occupation-agriculture, No irrigation facilities available in the village. Three Upper Primary schools upto 8th class, PTR is maintained in the school. Participation of more girls in school than boys. Women are more active and participating in socio-economic development of the village. Health Sub-centre is not fully functional, Aw centre is fully functional. Weak Local Governance System, Panchayat is not functional. People Celebrate Sarhul festival, Sarana, Diwali, Durgapuja, Makar Sankranti. Panchayat is implementing MGNREGA, but people are not getting wages in time.

### FIELD OBSERVATIONS RELATING TO RESEARCH PROBLEM

In regards to the status of Digitalization & impact of technology, Barwadag village is fit for the field survey. This the actual village what we called. The people of the village were well cultured. Both men & women work on the agricultural land. Electricity facility was not good as few houses were provided with electricity connection, which will lead them to darker side of the digitalization & technology. Consumption of alcohol is high as people use to drink at day time also. Houses were made of Mud. The ratio of girls is higher than the boys in the school. Agriculture is the primary occupation of the villagers.

### LIMITATIONS OF THE STUDY

Every research attempt has to face some problems. I am also facing some problems during the course of my study but I have overcome those problems and capable to prepared my research. As I am quite a new researcher in conducting social research so it may not possible to catch the perfect mechanism for the lack of experience. The main limitations of my research are:

- \* Time given was not sufficient to take interview of sufficient villagers.
- \* I just take a little number of sample respondents from the village. That may not represent the whole rural area in Barwadag village, but given a concept about the impact of digitalization & technology in the rural area.
- \* At the time of fieldwork, most of the people are not present in the house. So, it become difficult to gather sufficient information.

### DATA ANALYSIS AND DATA INTERPRETATION

**Table No-1 –Percentage Distribution of Family of the Respondents**

S. No	Types of Family	Number	%
1	Joint Family	11	73%
2	Nuclear Family	4	27%

**Observation:** Table no.1 gives the details about the type of families of the respondents. As given in this table out of 15 respondents 11 respondents i.e. 73% are having joint family and only 4 respondents i.e. 27% are having nuclear families. From this table, it can be concluded that most of the families in the village are joint families and having more number of members and the culture of joint families is still alive among the tribals in this era of modernization, which is almost ended in the urban population.

**Table-2-Percentage Distribution of occupation of the Respondents**

S. No	Types of Occupation	Number	%
1	Agriculture	8	53%
2	Labour	3	20%
3	Not Working	1	7%
4	Service	-	-
5	Other	3	20%

**Observation:** Table no. 2 gives the details about the occupation of the respondents. I found that most of the people in the village around 53 % are engaged in agriculture. Despite having very small amount of agriculture land. Around 20 % people are labours, 7% are doing nothing, and 20% are doing odd jobs like tailor, barber, and grocery store.

**Table 3- Percentage distribution Age of the respondents.**

S. No	Age	Number	%
1	18-35	6	40%
2	36-50	8	53%
3	Above 50	1	7%

**Observation:** Table no. 3 gives the detail about the age of the respondents. About 53% of the respondent population belongs to 36-50 age group, 40% of the respondents belongs to 18-35 age group and 7% of the respondents belong to Above 50 age group.

**Table 4:Percentage distribution of Education Qualification of the respondents.**

S. No	Education qualification	Number	%
1	Primary	-	-
2	Secondary	8	53%
3	Higher Secondary	3	20%
4	Graduate	-	-
5	Post Graduate	-	-
6	Illiterate	4	27%

**Observation:-** Table no. 4 gives the details about the education qualification of the respondents. Around 53% of the respondents have complete secondary education i.e. upto 8th class. Around 20% of the respondents have completed higher secondary education. Around 27% of the respondents are illiterate. In this village, the people generally doesn't prefer to do graduate or post graduate studies.

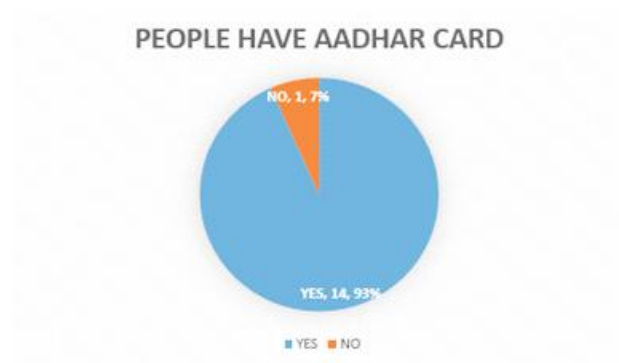
## 1. THE NEED FOR DIGITALIZATION

**Graph 1.1- People aware of Digitalization or Digital India.**



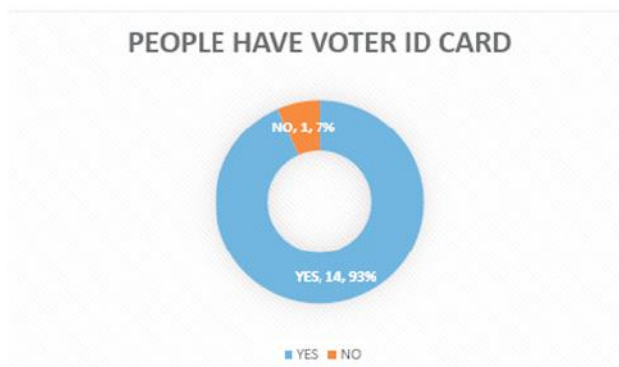
**Observation:** From the above chart, it can be ascertained that only 7% (i.e. only 1) of the respondents was aware of Digitalization or Digital India scheme. Which at the face value depicts the situation of the village and the need of Digitalization.

**Graph 1.2- People Have Aadhar Card**



**Observation:** From the above chart, it can be ascertained that 93% of the respondents have Aadhar card which is a great work of government in this field.

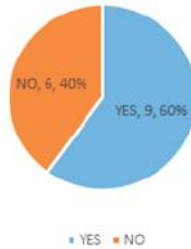
**Graph 1.3- People Have Voter ID card**



**Observation:** From the above chart, it can be ascertained that 93% of the respondents have Voter ID card which is a great ratio which shows the effort of the government in this field.

**Graph1.4- People Have Account in Banks or Post-office.**

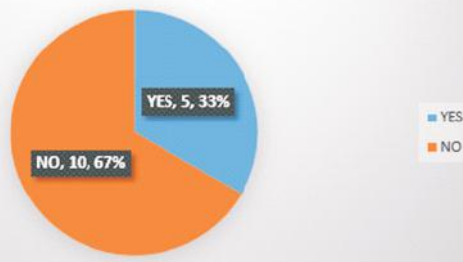
PEOPLE HAVE ACCOUNTS IN BANK AND POST-OFFICE



**Observation:** From the above chart, it can be ascertained that 60% of the respondents have Accounts in Bank or Post-office. Which shows that there is a lack in ease of banking services instead of government had launched Jan-Dhan Yojna scheme under which free bank account should be open in rural areas.

**Graph 1.5- People read newspaper or magazines.**

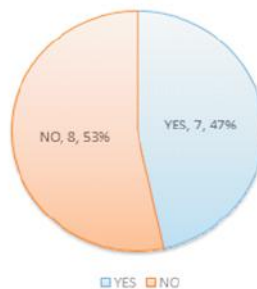
PEOPLE READ NEWSPAPER OR MAGAZINE



**Observation:** From the above chart, it can be ascertained that 67% of the respondents read newspaper or magazines which clearly depicts the situation of the village and the need for digitalization.

**Graph1.6- People are E-literate.**

PEOPLE ARE E-LITERATE



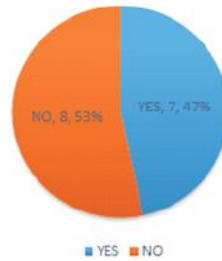
**Observation:** From the above chart, it can be ascertained that 47% of the respondents were E-literate which means that they are able to use mobile, computer and electronic appliances & gadgets. The data is very low according to today's world where whole thing is depend on Electronic things.



## 2. IMPACT OF DIGITALIZATION AND TECHNOLOGY IN RURAL AREA.

**Graph 2.1- Digitalization improve standard of living.**

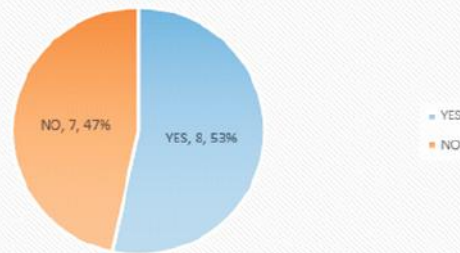
DIGITALIZATION IMPROVE STANDARD OF LIVNG



**Observation:** From the above chart, it can ascertained that 47% of the respondents have taken the advantage of digitalization in improving their standard of living which shows the impact of digitalization & technology.

**Graph 2.2- Literacy rate increase through digitalization in the village.**

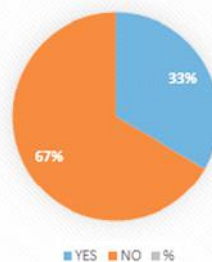
LITERACY RATE INCREASE THROUGH DIGITALIZATION IN VILLAGE



**Observation:** From the above chart, it shows that there is an increase in literacy rate through digitalization & technology.

**Graph 2.3- Digitalization helps in reducing poverty**

DIGITALIZATION HELPS IN REDUCING POVERTY



**Observation:** From the above chart, it can ascertained that 33% of the respondents would make use of digitalization & technology in reducing poverty and the data is very low instead of increasing literacy among the people.

**Graph 2.4- Digitalization helps in reducing crime rate in the village.**

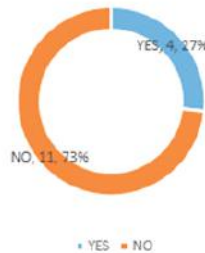
DIGITALIZATION HELPS IN REDUCING CRIME RATE IN VILLAGE



**Observation:** From the above chart, it can be ascertained that digitalization doesn't help the respondents in reducing crime rate in the village.

**Graph 2.5- Digitalization improve access to agricultural information.**

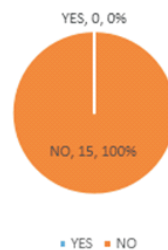
DIGITALIZATION IMPROVE ACCESS TO AGRICULTURAL INFORMATION



**Observation:** From the above chart, it can be ascertained that only 27% of the respondents use the benefit of digitalization & technology in accessing agriculture related information.

**Graph- 2.6- Digitalization helps in overcoming the traditional lacuna in the society like child marriage, dowry etc.**

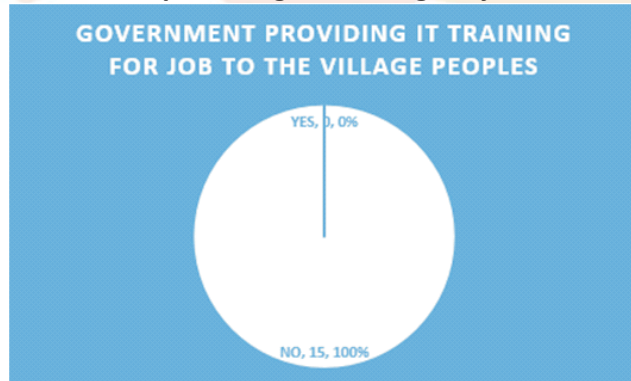
DIGITALIZATION HELPS IN OVERCOMING THE TRADITIONAL LACUNA IN THE SOCIETY LIKE CHILD MARRIAGE, DOWRY ETC.



**Observation:** From the above chart, it can be ascertained that their digitalization doesn't help in overcoming the traditional lacuna in the village.

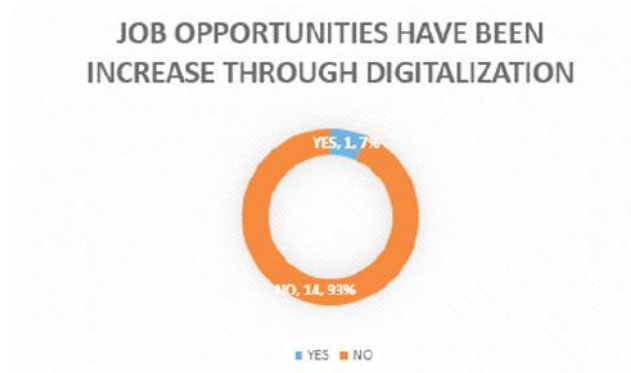
3. OPPORTUNITIES ASSOCIATED WITH DIGITALIZATION

Graph- 3.1- Government providing IT training for job to the village peoples.



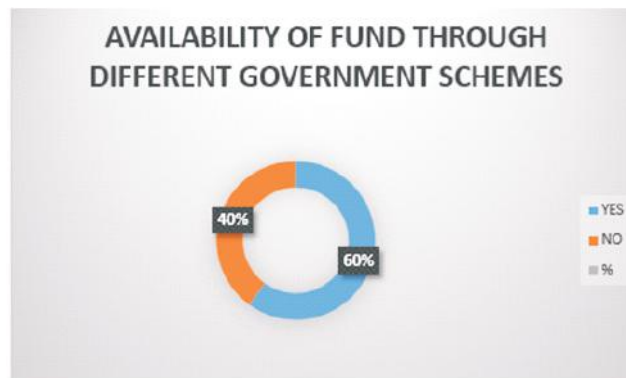
**Observation:** From the above chart, it can be ascertained that the government is not providing the villagers with IT training or jobs. This reduces the opportunities of the village people.

Graph 3.2- Job opportunities have been increased through digitalization.



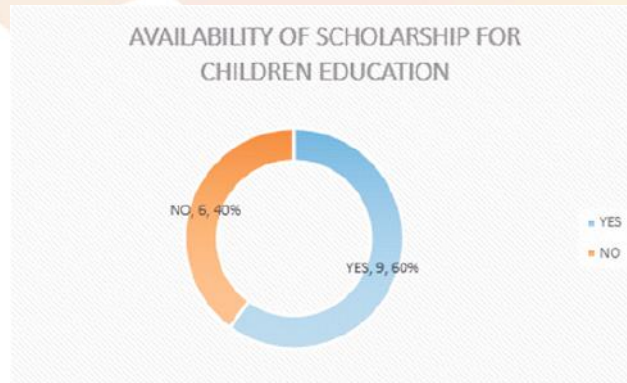
**Observation:** From the above chart, it can be ascertained that only 7% (i.e. only 1 out of 15) job opportunity has been increased through digitalization.

Graph- 3.3- Availability of fund through different government schemes.



**Observation:** From the above chart, it can be ascertained that around 60% of the respondents would be able to access funds through different government schemes.

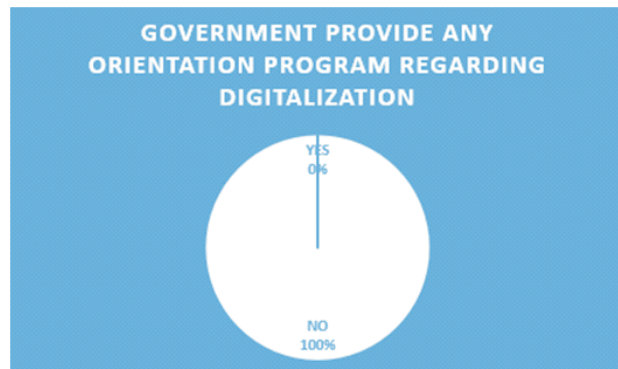
**Graph- 3.4- Availability of scholarship for children education.**



**Observation:** From the above chart, it can be ascertained that around 60% of the respondents were able to avail the scholarship for their child education.

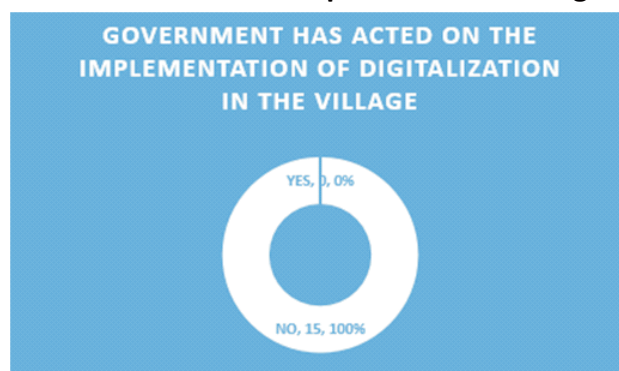
#### 4. BASIC PROBLEMS TOWARDS IMPLEMENTATION OF DIGITALIZATION

**Graph- 4.1-Government provide any orientation training program regarding digitalization.**



**Observation:** From the above chart, it can be ascertained that government hadn't provide the villagers with any type of orientation program regarding digitalization & technology.

**Graph- 4.2- Government has acted on the implementation of digitalization in the village.**



**Observation:** From the above chart, it can be ascertained that government hadn't acted on the plan of implementation of Digital India scheme in the village.

**Graph- 4.3- Government had setup any free broadband internet facility in the village.**

### GOVERNMENT HAD SETUP ANY FREE BROADBAND INTERNET FACILITY IN THE VILLAGE



**Observation:** From the above chart, it can be ascertained that government hadn't setup any free broadband, wi-fi internet facility in the village.

**Graph- 4.4- Government provide any mobile connectivity.**

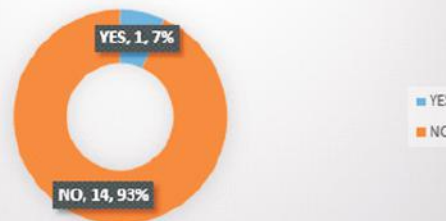
### GOVERNMENT PROVIDE ANY MOBILE CONNECTIVITY



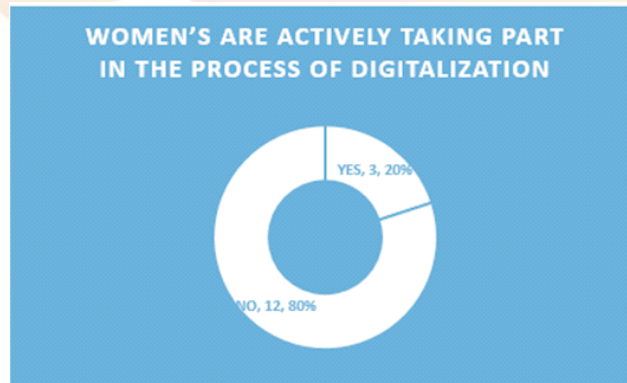
**Observation:** From the above chart, it can be ascertained that government hadn't provide the villagers with any mobile connectivity which is the very basic thing in today's world.

**Graph- 4.5 - People able to access different types of governmental Services.**

### PEOPLE ABLE TO ACCESS DIFFERENT TYPES OF GOVERNMENTAL SERVICES



**Observation:** From the above chart, it can be ascertained that only 7% (i.e. 1 out of 15) of the respondents are able to access different types of governmental services out of which 93% of the respondents were not able to access.

**Graph- 4.6- Women's are actively taking part in the process of Digitalization.**

**Observation:** From the above chart, it can be ascertained that only 20% of the women respondents are actively taking part in the process of digitalization which includes, how to use mobile, TV, radio etc.

### SUMMARY OF THE KEY FINDINGS

- \* People are not much literate, most of them educate upto class 8th very few have done higher secondary.
- \* 93% of the people were not aware of Digitalization or Digital India scheme
- \* 93% of the people have Aadhar card and Voter Id in the village.
- \* 60% of the people have Accounts in Bank or Post-office, which shows that there is a lack in ease of banking services
- \* Digitalization helps people in becoming E-literate i.e. knows how to operate mobile, computer and electronic appliances & gadgets.
- \* Literacy rate increase through digitalization & technology.
- \* Digitalization doesn't help in reducing crime rate in village or overcoming the traditional lacuna in the village.
- \* Digitalization helps the people in accessing different types of information like agricultural information and helps in produce more.
- \* Government haven't provided the villagers with IT training or Job, neither have they provided them with any orientation program regarding Digitalization & technology.
- \* Job opportunities has not been increased through digitalization.
- \* Government provide fund and scholarship through different government scheme but few of them are not able to avail the fund.
- \* Government hadn't started acting on the implementation of digitalization & technology in the village.
- \* Women's are not actively taking part in the process of digitalization which includes, how to use mobile, TV, radio etc.
- \* Digitalization does not covers each and every section of the society.
- \* Digitalization haven't increase the standard of living neither it reduces the poverty.

### RECOMMENDATIONS

- \* I.T. services need to be developed in reference to the present rural infrastructure which makes ease in accessing different government services through one portal.
- \* Internet-based services blended with customer support services should be provided in the rural areas.
- \* Educational program should be re-introduce to educate them minimum upto 12th standard.
- \* Orientation program should be provided to the rural people on regular basis. IT training & job should be provided to the rural peoples.

- \* Free broadband internet service and mobile connectivity should be provided in the rural village.
- \* Awareness program should be organised by the government to make them digitally empowered.
- \* Government should cover each and every section of the society.

## CONCLUSION

Today, every nation wants to be fully digitalized but this program strives to provide equal benefit in the rural areas. Digitalization of rural India in Barwadag village gives a very rosy picture. As there large number of people were illiterate and belongs to Below Poverty line (BPL) category by which they can't afford electronic media. The problems arise of Digitalization in rural areas due to failure of government public policy. Government hadn't started acting on the implementation of digitalization & technology in this village, neither have they provided them with any orientation program regarding Digitalization & technology. There is an urgent need for Digitalization and advancement of technology in Barwadag village. By not getting digital access their potential and opportunities are lagging behind. But it is not so, there are large number of problems and challenges ahead. But it can be said that rural people are no longer traditional and illiterate. It was found that whenever they got the opportunity they made full use of available technology and has benefitted with it. Government should have to re-introduce the educational program to educate the village peoples minimum up to 12th standard, I.T. services need to be develop, Awareness program should be organised by the government to make them digitally empowered. The face of this village can be transformed only with the development and implementation of Digitalization scheme and good governance. The increase in the services provided to the rural people (in terms of various services offered) by focusing each and every section of the society which will result in the overall betterment of the society on one side by enriching the people creating more opportunities for them.

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