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Rural Development through Digital India Initiative

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A B S T R A C T

Various initiatives in the recent past portrayed the significant role that the I.C.T plays in the realm of rural development. Several projects have reduced the costs, and it also has increased transparency. A large number of rural e-Governance applications, developed as pilot projects were aimed at offering easy access to citizen services and improved processing of government to citizen transactions.

The world has transformed from knowledge savvy to techno knowledge savvy. The things should be available on one click. The Digital India programme comprises of various initiatives each targeted to prepare India for becoming a knowledge economy and for bringing good governance to citizens through synchronized and coordinated engagement of the entire government. Digital indicates to electronic technology which generates stores and processes data. It is stored in a virtual central repository that can be accessed anytime, anywhere, through established protocols. Digital Technologies include Cloud Computing and Mobile Applications. Digital India is one of the steps by the government to motivate and connect Indian Economy to a knowledge savvy world. The overall programme is focused to develop India for a knowledgeable future by developing central technology for allowing revolution which covers many departments under one umbrella programme .The main objective of this research paper is to study the positive impact that Digitization of Indian economy will have on the growth and development of Rural Indian Sector.

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INTRODUCTION

We live in arena of technologies and digital world. Digital India is an innovative thought of Mr. Narendra Modi's government. It's an initiative of presidency of India to integrate the government Departments and also the people of India. It's an initiative to remodel the country into digitally empowers knowledge economy. The motive behind the concept is to attach rural areas with high speed internet network and improving digital literacy. The programme weaves together an outsized number of ideas and thought into one, comprehensive vision in order that each of them is seen a component of larger goal. It's coordinated by Department of Electronics and Information Technology, implemented by the whole government- both at the centre and state. Electronic commerce refers to wide selection of online business activities for products and services. The programme offers variety of digital solutions in the majority sectors education, health, agriculture, administration, financial inclusion etc. This paper may be a modest try to see the impact of Digital India in empowering rural India, its challenges and what other initiatives will be taken in it to form it simpler in order that urban-rural digital divide could also be filled and our villages can also develop and reap the advantages of digital revolution that's going down all round the world. This paper attempts to focus on the various challenges faced by the Digital India Programme. It also describes the various opportunities of the programme for the people of the country.

The Indian Government launched the Digital India campaign to make government services available to citizens electronically by online infrastructure improvement and also by enhancing internet connectivity. It also aims to empower the country digitally in the domain of technology. Prime Minister Narendra Modi launched the campaign on 1st July 2015by Prime Minister Narendra Modi. The initiative includes plans to connect rural areas with high-speed internet networks. Digital India consists of three core components. They are:

1. Create an infrastructure as a utility to every citizen
2. Deliver governance and services on demand
3. Enable the digital empowerment of all citizens

The Government's ambitious "Digital India" plan aims to digitally connect all of India's villages and gram Panchayats by broadband internet, promote e-governance and transform India into a connected knowledge economy. By the year 2019, the 'Digital India' program of the Government of India (GOI), envisages that 250,000 Indian villages will enjoy broadband connectivity, and universal phone connectivity. This is a truly visionary and commendable initiative. However, to implement this vision in a country where most of the population resides in rural areas is very challenging. It can best be done by creating Digital "Town Squares" – which will be tower-based sites that enable the Smart Village and would become the focal point for the providing information, social, e-learning and e-governance services to villages. This can become the spring board for rapid economic growth in the rural areas.

Global case-studies have demonstrated how wireless broadband plays a key role in rural society, impacting GDP, productivity and employment. In a study undertaken across 26 Latin American countries between 2003 and 2009, it was observed that a 10 per cent increase in broadband penetration resulted in an average increase of 3.19 per cent in per capita GDP. In Africa, 90% of the total broadband penetration is mobile-based. E-commerce, e-health/education and e-governance are already the key applications. For example, M-Pesa mobile banking service in Kenya carries 20% of the country's GDP.

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REVIEW OF LITERATURE

Boateng, M.S. (2012), said that using the theoretical sampling method, this paper gives more deeply on the ICT scene in Ghana from 2000 to 2011, with emphasis on considering the role of information technology in the development of rural areas. Paper was also designed and written to focus on different attempts by the country's governments to solve the crucial problems in use of information technology for rural growth.

Patel, Sami and Sayyed, I.U. (2014) studied that, some ways that will not be able to exchange information technology data, effective information about how educated emails or people or medical services for example, such as information that are not only required services, but also in the agriculture and affiliate services and most important line trading services, crop management system for various crops, form-level intelligent decision network, for the form of the formal-class system, to help optimal machinery management practices were developed. Leaf protein studies help a very important study which helps protect the protein deficiency and malnutrition. **Matto, Asra (2015)** studied that data technology is the one which is the technology discussed nowadays and helps to exchange knowledge in a faster and easier way at the appropriate time. Information technology is leading national agricultural activities and has changed the whole world with a world economy in a world village. Information technology has played a major role in improving the life level in rural areas and an average Indian farmer has helped to get relevant information about agricultural input, market support.

Siriginidi Subba Rao (2004) discusses the role of knowledge and communication technologies for rural communities. Those factors have been highlighted, which prevent rural communities from the benefits of technical innovations to reach data and communication technologies and access them. Despite the obstacles of the border in the infrastructure and the low level of data technology in India, 50 ground level projects are the modern ICT for the benefit of rural communities. Describes selected community projects in India. Also find the potential methods of their solution for the development of rural areas with the obstacles and rural projects in it. He also concluded that the construction of the rich society can be a major element of lack of poverty and sustainable development. Community Network Centres can play a vital role in meeting the socio-economic aspirations of rural communities by successfully addressing the" Eight Cs "of success by the digital age, connectivity, materials, communities, commerce, capacity, culture, collaboration and capital.

P. Adinarayana Reddy, D.Uma Devi & E. Mahadeva Reddy (2009) in the research studies, there are conclusions of research in science and technology among the industries, so that their participation can be promoted to adopt them for the benefit of the common people. At the same time, efforts made a high-end institution in this effort. The present study is the result of such a test done on the experiences of individuals and institutions in the field of rural development areas in the field of rural growth.

OBJECTIVES OF STUDY

There are following objectives of the study:

1. To study the vision and pillars of Digital India
2. To study the opportunities of the programme for the people of the country.
3. To study the challenges in implementing digital India
4. To study the impact of digital India programme on the upliftment of Indian rural economy.
5. To study how Digital India programme will lead to empowerment of rural entrepreneurship in the country.
6. To study the impact of digital India programme on the empowerment of rural women.

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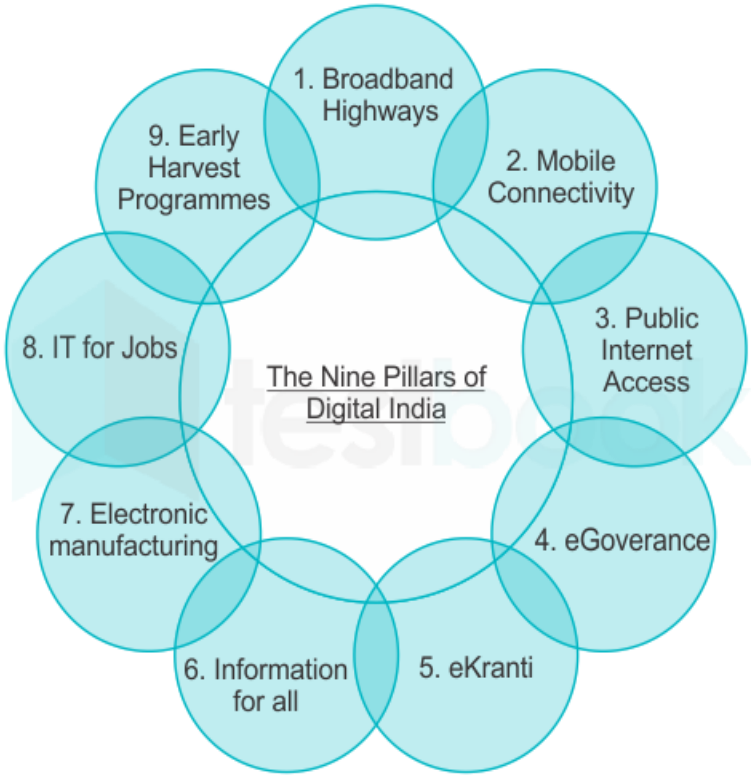
METHODOLOGY

This study attempts to explain the impact of digitization on the development of Rural India. It is based on secondary data that is collected through different sources like newspaper, internet, government websites, journals etc.

NINE PILLARS OF DIGITAL INDIA

At the launch ceremony of Digital India Week by Prime Minister Narendra Modi, top CEOs from India and abroad committed to invest Rs 4.5 lakh crore towards this initiative. The CEOs said the investments would be utilities towards making smart phones and internet devices at an affordable price in India which would help generate jobs in India as well as reduce the cost of importing them from abroad. 9 Key points of Digital India Programme are as follow:



1. **Broadband Highways:** Web based portals and Mobile apps will be developed to access online information while on the move. High speed broadband highways will be provided through fiber optics that connects all the remote areas, government departments, universities, R&D etc.
2. **Universal Mobile Access:** With Digital India programme nation is ready to be well connected, efficient, and more productive in every aspect. Network technologies like 3G, 4G and upcoming 5G will storm the speed.
3. **Public Internet Access:** The two sub components of Public Internet Access Programme are Common Service Centres and Post Offices as multi-service centres. CSCs would be made viable and multi-functional end-points for delivery of government and business services. DeitY would be the nodal department to implement the scheme. Post Offices are proposed to be converted into multi service centres.

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4. **E-Governance:** This governance will transform every manual work into fully automation system. It will revolutionize the system in the following ways: • Online access to applications i.e. availability of all databases and information in electronic format. • Effortlessly tracking of assignments. • Interface between departments for superior production of work. • Quickly respond, analyze and resolve persistent problems and many more.
5. **E-Kranti:** This e-kranti will fully focus on digital knowledge program where education, health, farming, rights, financial and many more services will be delivered on a very high bandwidth. Physical boundaries no longer are a limitation when almost everyone and everything is a digital handshake away.
6. **Electronics Manufacturing:** This milestone will create a huge base for electronics manufacturing in india with the aid of digital technologies and skills. The empowerment of manufacturing through the Internet of Things will enable intelligent workshops that demonstrate data driven operational excellence and decentralized production control systems within and beyond the physical factory walls.
7. **IT for Jobs:** The government is preparing to provide training and teaching skills to the youth for employment opportunities in the IT sector.
8. **Early Harvest:** The govt. is planning to set up Aadhaar Allowed Fingerprint Presence Program in all central government workplaces situated at Delhi. A web based application software system will allow online documenting of attendance and its watching by the involved stakeholders.
9. **Information for All:** Websites and mobile apps will convey data and realistic participation and through social media. Everything is connected through virtual networks. Swift work flow and no delays due to wait in queues.

OBJECTIVES OF DIGITAL INDIA

The motto of the Digital India Mission is 'Power to Empower'. There are three core components to the Digital India initiative. They are digital infrastructure creation, digital delivery of services, and digital literacy.

The major objectives of this initiative are listed below:

1. To provide high-speed internet in all gram panchayats.
2. To provide easy access to Common Service Centre (CSC) in the entire locality.
3. Digital India is an initiative that combines a large number of ideas and thoughts into a single, comprehensive vision so that each of them is seen as part of a larger goal.
4. The Digital India Programme also focuses on restructuring many existing schemes that can be implemented in a synchronized manner.

OPPORTUNITIES OF DIGITAL INDIA PROGRAMME

Though Digital India programme has faced many challenges in its implementation but it has some prospects which are mentioned below

1. It would bring in public accountability through mandated delivery of Government services electronically.
2. Digital India programme will put an end to corruption system which becomes the main feature of the country.

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3. Digital India programme aims to reduce paper work which will help to save trees & protect environment.
4. National scholarship portal, a project under Digital India, will put an end to scholarship process right from submission of student's application, verification, sanction and disbursal to end beneficiary for all scholarships provided by The Government of India.
5. It benefits people of India in every village in terms of knowledge improve by using internet in day to day life.
6. Each person will be having bank account.

SCOPE OF DIGITAL INDIA

The scope of overall programme is

1. The digital India is a great plan to develop India for a knowledge future.
2. On being transformation– to realize IT (Indian Talent) +IT (Information Technology) =IT (India Tomorrow).
3. The programme pulls together many schemes like e-Health, e-Sign, e-Education etc.
4. It weaves together a large number of ideas and thoughts into a single, comprehensive goal so that each of them is seen as part of a larger goal.
5. Each individual element stands on its own. But is also a part of the largest picture.
6. The common branding of program as Digital India highlights their transformative impact.

DIGITAL INDIA INITIATIVES

The Government has taken up many initiatives under the Digital India campaign. Discussed below are few such important initiatives:

1. **Digi-Lockers –** This flagship initiative aims at 'Digital Empowerment' of the citizen by providing access to authentic digital documents to citizen's digital document wallet
2. **E-Hospitals –** It is a Hospital Management Information System (HMIS) which is a one-stop solution in connecting patients, hospitals and doctors through a single digital platform. Till February 2021, as many as 420 e-Hospitals had been established under the Digital India campaign
3. **E-Pathshala –** Developed by NCERT, e-Pathshala showcases and disseminates all educational e-resources including textbooks, audio, video, periodicals and a variety of other print and non-print materials through the website and mobile app
4. **BHIM –** Bharat Interface for Money is an app that makes payment transactions simple, easy and quick using Unified Payments Interface (UPI)

CHALLENGES OF DIGITAL INDIA

The government of India has taken an initiative through the Digital India Mission to connect the rural areas of the country with high-speed internet networks. Apart from the various initiatives taken by Digital India, there are several challenges faced by it.

Some of the challenges and drawbacks of Digital Mission are mentioned below:

1. The daily internet speed, as well as the Wi-Fi hotspots, is slow as compared to other developed nations.

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2. Most of the small and medium scale industry has to struggle a lot for adapting to the new modern technology.
3. Limited capability of entry-level smart phones for smooth internet access.
4. Lack of skilled manpower in the field of digital technology.
5. To look for about one million cyber security experts to check and monitor the growing menace of digital crime.
6. Lack of user education.

DIGITAL INDIA PROGRAMME AND INDIAN RURAL SECTOR

The vision of Digital India National programme is path breaking and has the potential for transformational changes and upliftment of rural sector of India. The plan to provide universal phone connectivity and access to broadband in 2.5 lakh villages by 2019 is going to give a boost to the rural market. Setting up manufacturing facility in India to produce large scale low cost devices, the proposal of shared use of mobile devices by families in rural markets, sharing of infrastructure cost by mobile service providers and government offering to subsidise the roll out cost of mobile services are examples of increasing the speed of providing such services within the reach of villages. Several apps have been launched to enable farmers get accurate and timely information related to crops, market prices and analytics to enhance productivity and profitability of farmers. The digital platform will open a new era for rural citizens through a variety of services like improved governance, land records, jobs, health, education and agriculture and digitization of personal and public records for safekeeping.

World's largest software maker Microsoft Corp has joined hands with the Indian Government for providing help in efforts to "transform" the country through technological innovations.

Intel India has also announced the launch of ‘Ek KadamUnnati Ki Aur’, an initiative aimed at working with the government to create the blueprint for the digitization of rural India. The first such Digital India ‘Unnati’ Kendra has been set up at a Common Services Center (CSC) in Nadimpalle village of Mahabubnagar district of Telangana.

EMPOWERMENT OF RURAL ENTREPRENEURS UNDER ‘DIGITAL INDIA’

Digital India programme has launched many schemes that focus on the empowerment of rural entrepreneurs of India. One of such schemes is enhancing Rural Entrepreneurship through Common Services Centres (CSCs).Rural entrepreneurs can get loan for setting up their CSCs under the Micro Units Development and Refinance Agency (MUDRA) Yojana. CSCs are information and communications technology enabled service delivery points at the village level for delivery of government, financial, social and private services such as applying online passports, land record, digital locker and Aadhaar cards. Those who want to start such service points but do not have funds can start their micro-ventures by taking loans under MUDRA Yojana.

Another scheme for promoting rural entrepreneurship under Digitial India Programme is through Internet Kiosks. **Internet Kiosk** is a kiosk with one or more computers, a tablet, Internet connection, with a web cam that can be the set up in villages to be used as the hub of rural connectivity for providing education and training, information about agriculture and health care, employment news and market information. These cyber-kiosks can be run by local entrepreneurs thereby empowering the rural entrepreneurship.

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DIGITAL INDIA AND EMPOWEREMENT OF RURAL INDIAN WOMEN

Empowerment of women of a nation leads to the successful growth and development of a nation. Digital India Programme has set the stage for empowering the Rural Indian Women. Following are some of the steps taken by Indian Government under Digital India programme for empowering rural women:

ArogyaSakhi helps rural women developing their own personality in order to providing health care to the rural area. It's a mobile application that helps rural women entrepreneurs deliver preventive health care at rural doorsteps. Women armed with tablets and mobile healthcare devices like glucometers, blood pressure checking machine visit homes and collect data from the village women. This data can be accessed by doctors at any location who could provide treatment to the patients remotely.

Internet Saathi aims to go deep with the internet usage among rural women in India. Ratan Tata has joined hands with Google and Intel to help women in rural India to access the internet in large number. The three-way project Internet Saathi will deploy 1000 specially designed bicycles with connected devices to give villagers an altogether new internet experience.

The Amakomaya Project (Nepal) aims at of providing Nepali rural women with lifesaving digital content in their own local language via the Internet. It serves a social cause which is to providing pregnant women during and after pregnancy advices. By this way, it helps reducing population and diseases in new born children. With the high mobile tapping, the program has expanded with a mobile platform, and it also connects rural health workers with urban based hospital doctors.

W2E2 (India) Women for Empowerment and Entrepreneurship, in short W2E2 is helping rural women with digital tools, e-learning, internet connection. Women tend to use the Internet for their own projects in fields like sustainable agriculture and rural health. Some are setting up their own kiosks and shops to provide online services to the local community, while others have taken up work as digital literacy trainers in their own local communities.

CONCLUSION

In the past few years, digital awareness has become vital to India's economic growth and the promoting of social and economic equity among the diverse demographic landscape. It is fostering empowerment in rural India by enhancing inclusion and access to information and public services and overcoming the country's infrastructure deficit. Digital awareness is the way forward to empower and help India realize the ambition of creating a just and equitable society. Leveraging the untapped strengths of the rural population, it has the potential to propel India to the next stage of inclusive development and growth. The vision of a new India can be realized through the "maximin" principle in letter and spirit.

No doubt Digital India is progressing excellent in India and each day more excellent news are coming from different parts of the country especially villages as Kerala first fully digital state. Not only in empowering rural India but also empowering rural women who can access new opportunities, new markets through it and may get platform for his or her ideas and work it even the Microsoft IDC Asia Pacific recent study titled Unlocking the economic impact of Digital transformation in Asia-Pacific said that Digital transformation in India is anticipated to contribute about US$ 154 billion to India's GDP by 2021and increase the expansion rate by 1% annual. India's government has done much to encourage digital progress, from rationalizing regulations to improving infrastructure to launching Digital India, an ambitious initiative to double the scale of the country's digital economy. However, much must be in deep trouble India to comprehend its full potential. This helps by providing a marketplace for digital solutions, which generates revenue for providers, encourages digital start-ups, and offers individuals

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more reasons to travel online whether to receive a cooking-gas subsidy, register a property purchase, or access the other government service. Governments can also help by creating and administering public data sources that entrepreneurs can use to boost existing products and services and build new ones; by fostering a regulatory.

Digital India is a large umbrella program which will restructure and re-focus several existing schemes to bring in a transformative impact. The Digital India vision aims to transform our country into a digital economy with participation from citizens and businesses. This initiative will ensure that all government services and information are available anywhere, anytime, on any device that is easy-to-use, seamless, highly- available and secured. The Digital India program is just the beginning of a digital revolution, once implemented properly it will open various new opportunities for the citizens. It is one of the highly ambitious programs of Indian government, and is directly monitored by Hon'ble Prime Minister of India. The program is a multi-ministry program, with the involvement of central cabinet ministers, state governments etc. Various grand companies like Microsoft, Google and Fujitsu will also agreed be partner and help the success of Digital India initiative. While there are many obstacles in the path of Digital India program, one major of which is electricity. But this problem will soon be solved as there will be pressure on local leaders to get electricity in their village when Digital India program will be running in the nearby villages. Also, it will open gates for employment as Telecom Minister said while addressing students at Shri Ram College of Commerce: "IT gives employment to about 30 lakh people. Once Digital India becomes reality, we can give jobs to five crore plus people."

With the adoption of Digital India Project, India will have a powerful digital infrastructure. All educational institutions and government services will soon be able to provide digital services round the clock. More employment prospects will open for the youth that will boost the nation's economy. Tech giants from all over the world are willing to actively participate in this campaign. The outcome of Digital India is to produce Wi-Fi locations for people, creating job, universal phone connection, High speed internet , Digital Inclusion, eServices, e-Governance, Digitally motivated people, National Scholarships Portal , Digital Lockers System, e-education and e-health making India to be pioneer in IT use solution.

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