# DIGITAL INDIA: Technology Advancement in Indian Economy

## PUSHPA

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## Abstract

Digital India is a new beginning in Indian economy. In the era of technological advancement, Digital India programme is a new initiative launched by Prime Minister Narendra Modi on 2 july2015 to make India digitally advanced country. It is an ambitious project of Indian government with cost of Rs. 1, 13,000 crores. This campaign aims to provide govt. services to each and every citizens electronically with more improved online infrastructure and connectivity even in rural area. Digital India is mainly designed to transform India as a knowledgeable and digitally empowered society. This will help in providing good governance service to citizens digitally with the help of mobile phones as its delivery mechanism. The main thrust of this programme is to upgrade technology in government departments and easy access to the services provided by them made available to the public. Prime minister of India Narendra Modi launches various portals and products in digital India week to make this programme a reality. However it is not so easy to implement this programme on practical ground, yet it will be a leading step in transforming India. The objective of this paper is study digital India mechanism and challenges faced in its implementation.

Keywords: Digital India, E-governance, technology, infrastructure.

## Introduction

With the advancement of technology, it become essential to follow latest technology to survive and grow in world economy. With the advent of internet and keep pace with the rest of world, Indian government has also started 'digital India' programme. On 1 July 2015 prime minister of India has launched digital India week. During this week prime minster has launched various

portals and products to support digital India programme. The aim of this week is bring awareness among public about the services and facilities available under this programme. According to PM Modi, digitalization of govt. is necessary to bring transparency and curb corruption and bridge gap of inequality.

It is a big step towards digital literacy, better broadband and network connectivity, Wi-Fi hotspots etc. it leads to more innovations in technological advancement in country. This programme is designed and developed by department of Electronics and Information Technology (Deity) and it has impact on many ministries like ministry of communication and IT, Ministry of rural department, Ministry of health and human resource department and others. This programme will be enforced from 2015 till 2018 .The main components of structure of digital India are:

Creating more and more digital infrastructure

Making more efforts for digital literacy

Providing government services digitally

**Pillars of Digital India Programme**

1. Broadband Highways: It is the main pillar of the programme. It covers broadband for all rural, urban and national information infrastructure. High speed broadband highways will be provided through National fiber optics network in 2.5 lakh gram panchayats.
2. Universal Access to mobile connectivity: It is concerned with ensuring mobile connectivity to rural and faraway places and fill the existing gap in connectivity framework. The aim is to cover 44000 villages in next four years.
3. Public internet access programme: 250000 villages and 150000 post offices will be connected through this scheme under the name of common service centers and post office multiple service to provide better facilities to public.
4. E-governance: The aim of government is to make easy accessibility of government services online at all levels of government. Department of Electronics and information technology (Deity) and Department of Administrative Reforms and Public Grievances (DARPG) has formulated national E-governance plan. Govt. services like ration card, voter card, aadhar card, birth death registration, online payment interface, government databases are available online.

5. E-kranti: E-kranti has focus on digital India programme to provide electronics facilities of education, health, banking, farming, justice and other services.

6. Information for all: Information is made available to each and every one through electronic means .Two way communication is made possible between public and govt. to exchange ideas and suggestions.

7. Electronics Manufacturing: Electronic equipment's are required for successful implementation of the programme. A national policy Electronics System Design & manufacturing (ESDM) has been brought to promote manufacturing of electronics in India and reduce export.

8. IT jobs: The aim of this pillar is to trained youth in field of IT sector to make them more competent in performing their jobs.

9. Early harvest programme: The programme covered under this pillar is biometric attendance, Wi-Fi in all universities, secure email within government, eBooks, and national portal for lost and found children.

## Literature Review

Neeru Gupta, Kawaldeep Arora (2015), this study concluded that the Digital India programme will help in providing a powerful digital infrastructure.

Rahul Midha (2016) concluded that this programme will open more employment opportunities for youth and will empower more digital connectivity in society and will also provide more technology infrastructure in the economy.

Seema Dua (2017) has concluded that Digital India is a great step towards transforming India into Digitally empowered economy. According to her, there are lots of challenges in implementing in this programme and will also provide suggestion for making it more viable and successful programme.

Karamvir Sheokand and Neha Gupta (2017) have concluded that Digitalization of economy has increased transparency in Government Departments and has increased quality of social life by providing easy service delivery and special programme of various activities. Almost all the

sectors of the economy has been benefitted by Digital India Programme. According to this study it is a great step towards shifting India as a developed economy.

**Discussion on Literature**

The above Literature indicates that Digital India Programme is a great programme for making India as a digitally empowered economy. This programme can provide better future to Indian economy if implemented properly. With the introduction of this programme transparency in government departments has increased and almost all the sectors are affected by this programme.

**Objectives of the Study**

1. To discuss about the new technological portals, apps   and facilities made available to make digital India programme successful
2. To discuss the challenges faced in implementation of this programme.

**Research Methodology**

Research methodology is descriptive as it based on secondary data which is collected from various govt. portals and   from other internet sources.

**Limitations of the Study**

Secondary data is used for the study. Primary data is not collected for the study purpose.

Technological App

Indian Government has launched many mobile apps /portal to support the digital India Programme. These mobile apps can be easily downloaded from the google play store and easily operated from any android mobile phone. Some of the major mobile apps and portals are discussed below:

My Govt Mobile App.

It is the innovative platform which provides opportunities to the general public to participate in governance by sharing their ideas suggestions and comments to central ministries. Through this app, public can directly participate in policy formulation and in their implementation.

Narendra Modi App

It is an official app of Prime minister of Narendra Modi .It provides latest information, updates, and news and help to share suggestions, ideas and views of general public.

Swachh Bharat Mobile app

The Ministry of drinking water and sanitation (MDWS) also launched mobile app for swachh Bharat to support the Swachh Bharat Mission launched on 2 October, 2014 by the prime minister of India.

Incredible India App

This app is innovative project of ministry of tourism that helps tourists in India by providing all information by providing all information about service available and government approved Travel agents, domestic tour operators, adventure tour operators, local tourist guides at various tourist centers in India.

Post Info Mobile App

This app provide all information about post office, post master search, address and also provide postage calculator on various types of parcels, trading of parcels and deposits and interest in post office saving scheme.

Khoya Paya

This app is a positive step towards finding missing children. Through this app a person can provide information about missing or sighted child without any legal formalities. The information is quickly updated for public view which prove helpful in searching a child by matching his attributes.

Garv Grameen Vidyutikaran

This app gives all information about work projects of rural electrification all over the country.

Voter name search

This app help in checking a voter name in electoral role of the constituency

M Passport Sewa

Through this app all information and services related to passport are provided to Indian Citizens by Passport and Visa divisions of the Ministry of External affairs, Government of India in an efficient and convenient

M-Kavach

It is a complete android mobile phone security solution. It provides, against personal data theft, lost or stolen devices and misuse of Bluetooth and Wi-Fi resources, unwanted and threatening calls.

Some other important portals, products and policies are also launched by PM during Digital India week to accelerate the pace of digital India compaign.these are:

BharatNet

Bharat Net is the world's rural broadband connectivity project. National Optical Fiber Network (NOFN) scheme which was launched in OCT 2011 was renamed as Bharat net in 2015. The aim of this programme is to provide connectivity broadband in rural areas. It is the backbone of all the programme taken under Digital India.

Wi-Fi Hotspots

Wi-Fi hotspot services has been provided by BSNL at 17 location covering 6 cities to ensure quick and affordable high speed broadband service . Government is keen to increase number of hotspots in tourist spots and educational institutes.

Next Generation Network

The idea behind NGN is one network will transport all the information's and services through one IP packets. Various value added services like video chats, conferencing is made available for the first time on mobile phones at nominal prices. It is consolidation of more than network.

Products

 1 Digital locker

The aim of digital lockers is to minimize the use of physical documents and ensuring e – documents .Important documents like PAN card, certificates, and passport can be kept safe in digital lockers

2 National Scholarship portal

This portal keep record of amount of scholarship, transfer to bank account of registered students and update alerts of disbursement is also sent on mobile.

3 e-Hospitals

Online services are provided to public such as online registration, appointment, view diagnostic reports and also payment of fees.

4 esign

This app provide digital signing of documents using Aadhar KYC services.

Institutions

Center for flexible electronics

It is an initiative of central Government for promoting research and innovating ideas in the field of flexible electronics.

Center for Excellence for Internet of things (IOT)

IOT is set with the aim of promoting technological advancement in IT sector, eco system to make India leader in this thing and developing IOT.

Electronic Development Fund Policy

It is a kind of refinancing scheme.  It will help in attracting new venture funds, seed funds and angel funds towards innovation and research programme in the field of information technology, Nano technology and electronics.

UPI Apps

UPI means unified payment interface. After demonetization UPI app for making payment has increased tremendously. Many bank has launched their digital app to provide service to customers on mobile.

BHIM App

BHIM App is launched and developed by National Payment Corporation of India (NPCI). This app provide access to all services and banking solutions. It is best app. It helps us in making easy and quick transaction by using UPI. Direct payment can be made by using UPI ID or scanning their QR with BHIM App.

Bonus App

IT is an initiative of PNB. It also allows sending money by using VPA or IFSC account number. Various other services are provided like UPI Pin, balance enquiry, adding more than one account. But you cannot scan QR code with this app.

PhonePe App

Phonepe App is the second fastest app after BHIM App. This app not only provide banking solution but also has features of mobile wallet. Phonepe can be used for paying bill and recharging phone. This app is available in eight languages including regional like Marathi, Bengali, etc. Money can be sent even using mobile number only if money number is registered with UPI. Other facilities are sending or requesting money, generating or scanning QR codes, set/change UPI Pin.

Emanpower by Canara Bank

Emanpower is the official UPI app of Canara bank. It has lot of features and also provide you to select profile picture. Money can be send by using virtual payment address, mobile number, MMID, Aadhar number, IFSC Code and account number.

Axis Pay

This app is very easy app having two options of sending money and another requesting money on the home screen.

Other UPI Apps

Paytm

It is launched in 2010 but after demonetization use of this app is increased. It is the largest mobile wallet app in India. It is simple to use and almost accepted everywhere.

PayU Money, Pay Mate, Freecharge, HDFC Pay app, SBI Buddy, Mobikwik, Jiomoney, Mswipe, Ola Money, LIME, ICICI Pockets, etc. are also in use for making digital payments .

All these are certainly adding their contribution to make India digitally empowered.

**Challenges**

Digital India is a dream project of Government of India but it is not easy to implement it as effectively as could be. There are lots of hurdles in its implementation.

There is lack of timely sport and coordination among various government departments which results in delay of work and its timely execution.

Very high cost of implementation is also a major difficulty.

Lack of digital literacy is also a drawback which affect the implementation of programme adversely. People in India are still not aware of internet and how to use it.

Establishing infrastructure facilities required for building high speed broadband highway and connectivity is also a big challenge. In some part of the county still there is slow speed of internet. Proper connectivity and functioning of broadband in each and every village is not so easy task. According to an estimate 67% of NOFN are nonfunctional at its early stage

Awareness about digital India programme among common people and their contribution towards this programme is required. But common people in India is not fully aware of benefit of this programme.

Timely execution of programme is one of the biggest challenge. Due to slow and delayed work speed of various projects of Digital India only 31000 hotspot are presently reach at global level whereas 80 lakhs hotspot are required.( According to ASSOCHOM Deloitte Report).

Participation of the private sector is not up to mark in providing mobile connectivity or other digital facilities in rural and faraway place because there is long and complex process in government projects. Moreover, private sector find it not commercially feasible and profitable that results in poor support from them.

Lack of cyber security and fear of cybercrime also prove obstacle in adopting digital technologies. India lacks experts to tackle cyber security issues.

**Conclusion**

Digital India is a high profile programme of government of India. It is a big step towards transforming India as a digitally empowered society. It is quite wise and timely decision of PM Narendra Modi, because in changing scenario of digitalization all over the world, it is demand of time that India should also digitalized. Many new facilities such as egovernance, ekranti, MyGov Mobile app, Bharatnet, broadband Highways Wi-Fi hotspots and internet for all etc. launched by PM to promote digital India compaign.UPI apps such as BHIM app, Phonepe app and many banks payment app are contributing a lot towards digitalization of payments.

There is tremendous increase in use of UPI apps after demonetization on November 8, 2016. The Digital India programme seems to change India completely in coming years. However the implementation of this programme is not an easy task. Many challenges are still to overcome to make this programme a practical reality such as lack of infrastructure digital illiteracy, involvement of huge cost, timely execution of various schemes. In initial stage programme is working slowly but in near future it will prove a landmark in transforming India as a digitally empowered country.

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