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DIGITAL INDIA – THE RIGHT MOVE TO INOVATE AND TRANSFORM INDIA DIGITALLY

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ABSTRACT
Digital India is the beginning of digital revolution. It is a dream which is created by the Government of India to ensure that government services are made available to citizens electronically, even in remote area, by improving online infrastructure and by increasing Internet connectivity. The programmes have one mission and one target that is to take nation forward digitally and economically. The initiative will enable people to get engaged in the innovation process which is needed by the economy to move forward. But to implement this is a great challenge. There are many roadblocks in the way of its successful implementation like digital illiteracy ,poor infrastructure, low internet speed, lack of coordination among various departments, issue pertaining to taxation etc . These challenges need to be addressed in order to realize the full potential of this programme. It requires a lot of efforts and dedication from all departments of government as well as private sector. If implemented properly, it will open various new opportunities for the citizens of the country.

KEY WORDS- Digital, Infrastructure, Opportunities, Revolution, Roadblocks

LITERATURE REVIEW
A number of research papers and articles provide a detailed insight about the role of digital India and the implications of this project in India. Rani (2016) concluded that the digital India project provides a huge opportunity to use the latest technology to redefine India the paradigms of service industry. It also pointed out that many projects may require some transformational process, reengineering, refinements to achieve the desired service level objectives.

Midha(2016) concluded that digital India is a great plan to develop India for knowledge future but its improper implementation due to inaccessibility and inflexibility to requisite can lead to its failure. Though digital Indiaprogramme is facing number of challenges yet if properly implemented it can make the best future of every citizen. So we Indians should work together to shape the knowledge economy.

Gupta and Arora (2015) studied the impact of digital India project on India's rural sector. The study found that many schemes have been launched in digital India to boost agriculture sector and entrepreneurship development in rural areas. Digital India programme has also set the stage for empowerment of rural Indian women.

INTRODUCION
Our Youth has surprised the world with its IT skills.
Our ancestors used to play with snakes.
We play with mouse.
(Mr. Narendra Modi – Hon'ble Prime Minister of India)
The Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy.

E-governance initiatives in India took a broader dimension in the mid 1990s for wider sectoral applications with emphasis on citizen-centric services. The major ICT initiatives of the Government included, inter alia, some major projects such as railway computerization, land record computerization, etc. which focused

mainly on the development of information systems. Later on, many states started ambitious individual e-governance projects aimed at providing electronic services to citizens.

Though these e-governance projects were citizen-centric, they could make less than the desired impact due to their limited features. The isolated and less interactive systems revealed major gaps that were thwarting the successful adoption of e-governance along the entire spectrum of governance. They clearly pointed towards the need for a more comprehensive planning and implementation for the infrastructure required to be put in place, interoperability issues to be addressed, etc. to establish a more connected government.

Digital Technologies, which include Cloud Computing and Mobile Applications, have emerged as catalysts for quick economic growth and citizen empowerment across the globe. Digital technologies are being increasingly used by us in everyday lives, from retail stores to government offices.

OBJECTIVES

1. To understand the concept of Digital India
2. To discuss about the visions of Digital India
3. To understand the pillars and initiatives of Digital India
4. To study the impact of Digital India on the Indian society

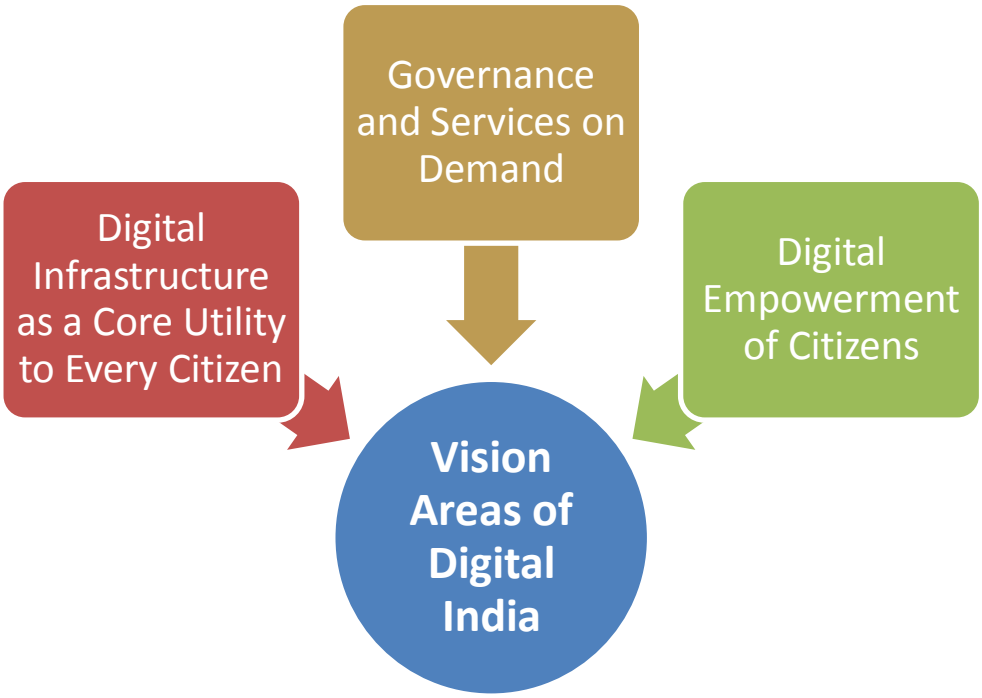
RESEARCH METHODOLOGY

The secondary data has been collected. For this purpose, various magazines and journals have been used as it is a conceptual paper. Thus, the focus is to know more about the concept, its application and the impact on economy. Therefore qualitative data have been used. http://digitalindia.gov.in/content/introduction

Sharma Jyoti (May- June 2016). Digital India and its Impact on the Society. International Journal of Research in Humanities & Soc. Sciences ,vol 4, issue 4, pp64-70. Retrieved from https://raijmronlineresearch.files.wordpress.com/2017/06/11_64-70-jyoti-sharma.pdf

The Focus is to bring Transformation to Realize

VISION OF DIGITAL INDIA



The vision of Digital India programme is to transform India into a digitally empowered society and knowledge economy.

Digital Infrastructure as a core Utility to Every Citizen

1. Availability of high speed internet as a core utility for delivery of services to citizens
2. Cradle to grave digital identity that is unique, lifelong, online and authenticable to every citizen
3. Mobile phone & bank account enabling citizen participation in digital & financial space

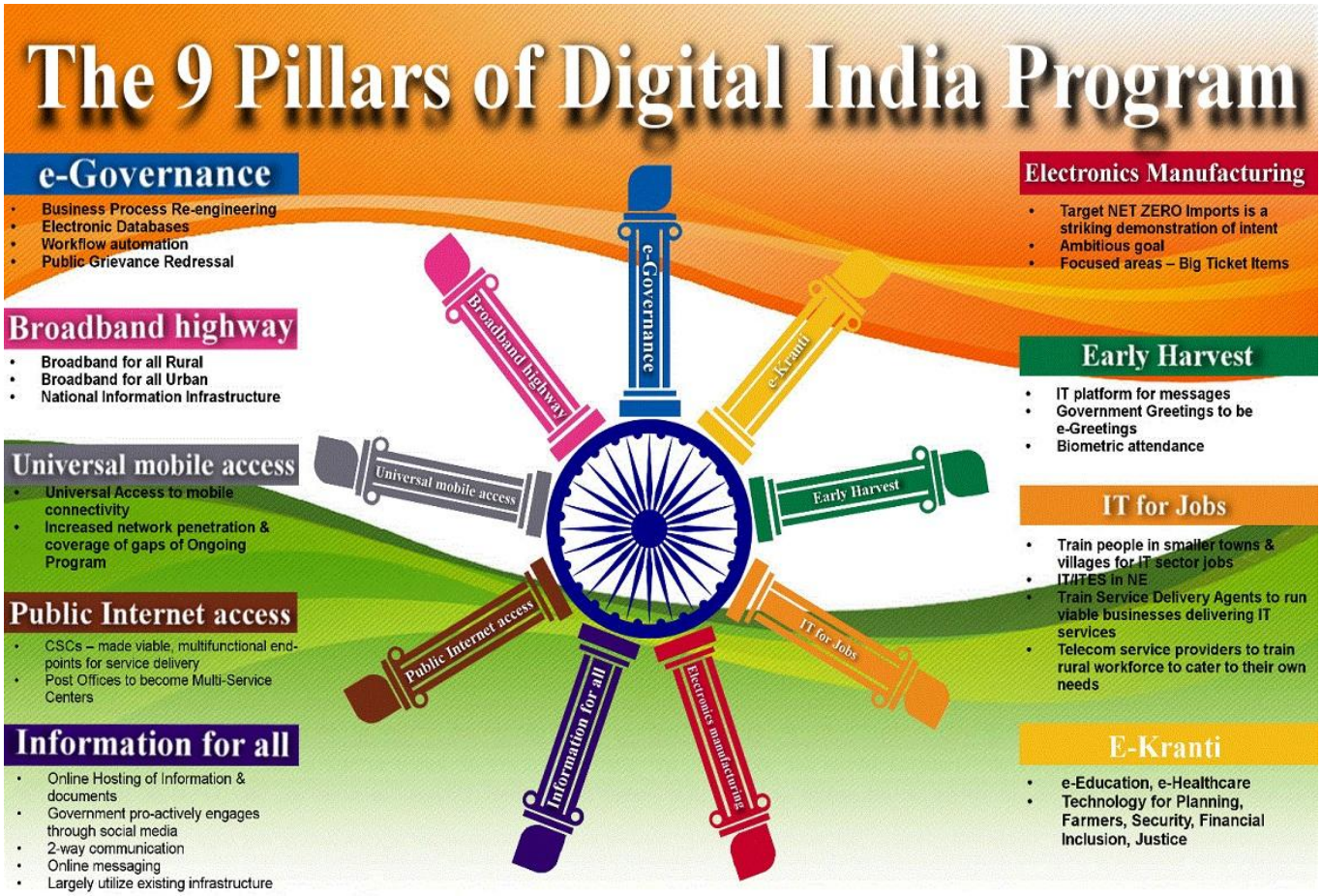
Governance & Services on Demand

- Seamlessly integrated services across departments or jurisdictions
- Availability of services in real time from online & mobile platforms
- All citizen entitlements to be portable and available on the cloud

Digital Empowerment of Citizens

- Universal digital literacy
- Universally accessible digital resources
- Availability of digital resources / services in Indian languages

HOW DIGITAL INDIA WILL BE REALIZED: PILLARS OF DIGITAL INDIA



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PILLAR 1- BROADBAND HIGHWAY

Broadband for All – Rural - 2,50,000 village Panchayats would be covered under the National Optical Fibre Network (NOFN) by December 2016. Department of Telecommunications (DoT) is the nodal Department for this project.

Broadband for All – Urban - Virtual Network Operators would be leveraged for service delivery and communication infrastructure in new urban development's and buildings would be mandated.

National Information Infrastructure (NII) - NII would integrate the network and cloud infrastructure in the country to provide high speed connectivity and cloud platform to various government departments up to the panchayat level. These infrastructure components include networks such as State Wide Area Network (SWAN), National Knowledge Network (NKN), National Optical Fibre Network (NOFN), Government User Network (GUN) and the MeghRaj Cloud. NII aims at integrating all ICT infrastructure components such as SWANs, NKN, NOFN, GUN and GI Cloud. It will have provision for horizontal connectivity to 100, 50, 20 and 5 government offices/ service outlets at state, district, block and Panchayat levels respectively. DeitY will be the nodal Department for this project.

Pillar 2 - UNIVERSAL ACCESS TO MOBILE CONNECTIVITY

This initiative focuses on network penetration and filling the gaps in connectivity in the country.There are around 55,619 villages in the country that do not have mobile coverage. As part of the comprehensive development plan for North East, providing mobile coverage to uncovered villages has been initiated. Mobile coverage to remaining uncovered villages would be provided in a phased manner.The Department of Telecommunications will be the nodal department and project cost will be around `16,000 Cr during 2014-18.

Pillar 3 - PUBLIC INTERNET ACCESS PROGRAMME

The two sub components of Public Internet Access Programme are Common Services Centre's (CSCs) and Post Offices as multi-service centres.

Common Services Centres (CSCs)

CSCs would be strengthened and its number would be increased to 250,000 i.e. one CSC in each Gram Panchayat. 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.
The more details can be seen at:

- **CSC 2.0: A Way Forward" (under Digital India Programme)**
  (Aims to cover 2.5 Lakhs of Gram Panchayats for maximizing delivery of e-Services to the citizens)
- **CSC Portal:** http://csc.gov.in/
- **DeitY's weblink:** http://deity.gov.in/content/common-services-centers
- **e-Book:** http://deity.gov.in/DeitY_e-book/csc/index.html

http://digitalindia.gov.in/content/broadband-highways
http://digitalindia.gov.in/content/universal-access-mobile-connectivity

Post Offices as multi-service centres

A total of 150,000 Post Offices are proposed to be converted into multi service centres. Department of Posts would be the nodal department to implement this scheme.

Pillar 4 - E-GOVERNANCE – REFORMING GOVERNMENTS THROUGH TECHNOLOGY

Government Process Re-engineering using IT to simplify and make the government processes more efficient is critical for transformation to make the delivery of government services more effective across various government domains and therefore needs to be implemented by all Ministries/ Departments.

The guiding principles for reforming Government through technology are:

- **Form simplification and field reduction** – Forms should be made simple and user friendly and only minimum and necessary information should be collected.

- **Online applications and tracking** - Online applications and tracking of their status should be provided.

- **Online repositories** - Use of online repositories e.g. for certificates, educational degrees, identity documents, etc. should be mandated so that citizens are not required to submit these documents in physical form.

- **Integration of services and platforms** – Integration of services and platforms e.g. Aadhaar platform of Unique Identity Authority of India (UIDAI), payment gateway, Mobile Seva platform, sharing of data through open Application Programming Interfaces (API) and middleware such as National and State Service

Delivery Gateways (NSDG/SSDG) should be mandated to facilitate integrated and interoperable service delivery to citizens and businesses.

Pillar 5 – E KRANTI

Background

Over the years, sustained efforts have been made at multiple levels to improve the delivery of public services and simplify the process of accessing them. In this regard, severale-governance initiatives have been undertaken by various State Governments and Central Ministries to usher in an era of e-Government. E-Governance in India has steadily evolved from computerization of Government Departments to initiatives that encapsulate the finer points of Governance, such as citizen centricity, service orientation and transparency.

The National e-Governance Plan (NeGP)

The National e-Governance Plan (NeGP) was conceptualized to focus on e-Governance initiatives at the national level with an aim to "Make all Government services accessible to the common man in his locality, through common service delivery outlets, and ensure efficiency, transparency, and reliability of such services at affordable costs to realise the basic needs of the common man". The strategy adopted was centralized planning and decentralized planning. The Government initially approved the National e-Governance Plan (NeGP), comprising of 27 Mission Mode Projects (MMPs) and 8 components, on May 18, 2006. 4 more mission mode projects namely 'Education', 'Health', 'Posts' and 'Public Distribution System' were added to NeGP portfolio in 2011.

e-Kranti (Transforming- Governance for Transforming Governance)

Considering the critical need for transforming e-Governance and promote mobile Governance and Good Governance in the country, the approach and key components of e-Kranti have been approved by the Union Cabinet on 25.03.2015 with the vision of "Transforming e-Governance for Transforming Governance".

The key principles of e-Kranti are as follows:

1. **Transformation and not Translation** - All project proposals in e-Kranti must involve substantial transformation in the quality, quantity and manner of delivery of services and significant enhancement in productivity and competitiveness.

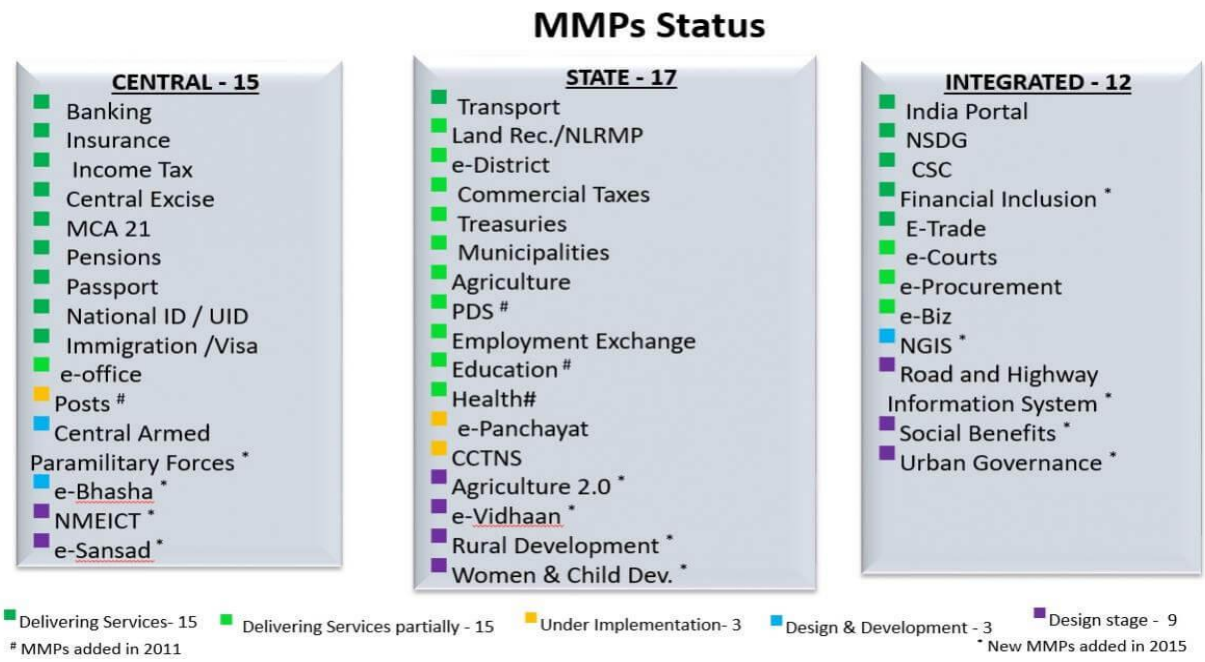
2. **Integrated Services and not Individual Services** - A common middleware and integration of the back end processes and processing systems is required to facilitate integrated service delivery to citizens.

3. **Government Process Reengineering (GPR) to be mandatory in every MMP** - To mandate GPR as the essential first step in all new MMPs without which a project may not be sanctioned. The degree of GPR should be assessed and enhanced for the existing MMPs.

4. **Cloud by Default** – The flexibility, agility and cost effectiveness offered by cloud technologies would be fully leveraged while designing and hosting applications. Government Cloud shall be the default cloud for Government Departments. All sensitive information of Government Departments shall be stored in a Government Cloud only. Any Government Department may use a private cloud only after obtaining permission from Department of Electronics and Information Technology which shall do so after assessing the security and privacy aspects of the proposed cloud.

5. **Mobile First** - All applications are designed/ redesigned to enable delivery of services through mobile.

http://digitalindia.gov.in/content/ekranti



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Pillar 6 - INFORMATION FOR ALL
Open Data platform (http://data.gov.in)

Open Data platform facilitates proactive release of datasets in an open format by the ministries/departments for use, reuse and redistribution. Online hosting of information & documents would facilitate open and easy access to information for citizens.
Government shall pro-actively engage through social media
Government shall pro-actively engage through social media and web based platforms to inform and interact with citizens. **MyGov.in**, a platform for citizen engagement in governance, has been launched by the Hon'ble Prime Minister on 26th July, 2014, as a medium to exchange ideas/ suggestions with Government. It will facilitate 2-way communication between citizens and Government to bring in good governance. [10]

Pillar 6 – ELECTRONICS MANUFACTURING
Target NET ZERO Imports is a striking demonstration of intent.

This pillar focuses on promoting electronics manufacturing in the country with the target of NET ZERO Imports by 2020 as a striking demonstration of intent. This ambitious goal requires coordinated action on many fronts, such as:

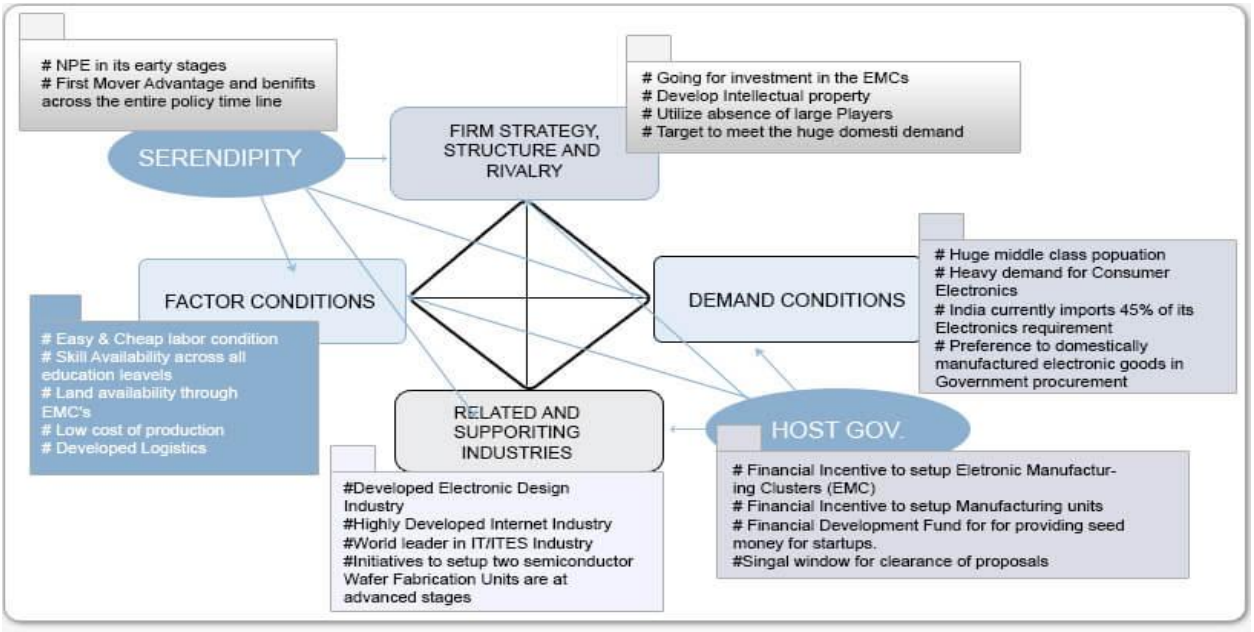
a. Taxation, incentives
b. Economies of scale, eliminating cost disadvantages
c. **Focus areas – Big Ticket Items**
d. FABS, Fab-less design, Set top boxes, VSATs, Mobiles, Consumer & Medical Electronics, Smart Energy meters, Smart cards, micro-ATMs
e. Incubators, clusters

Demand for electronic goods is increasing with a Compound Annual Growth Rate (CAGR) of 22% and is expected to touch 400 Billion USD by 2020. Indian government is also taking several steps to promote manufacturing and investment in this sector, which puts India high on the list of potential places to invest.

National Policy on Electronics (NPE)

Government of India has approved National Policy on Electronics launched in 2012 (NPE 12) which is holistic, investor friendly and market driven towards creating a conducive environment to attract global and domestic companies to invest towards the growing Electronics System Design & Manufacturing (ESDM) sector in India. This gives unique opportunity for companies to consider India as a destination in ESDM sector and be part of the next largest Electronic Manufacturing Hub of the world and also provide value added manufacturing involving medium and high technologies.

The details of these policies can be referred at department's Website: www.deity.gov.in/esdm**.**



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Pillar 8 – IT For Job

This pillar focuses on providing training to the youth in the skills required for availing employment opportunities in the IT/ITES sector. There are eight components with specific scope of activities under this pillar:

1. IT Trainings to people in smaller towns and villages
2. The target of this component is to train one crore students from smaller towns & villages for IT sector jobs over 5 years. DeitY is the nodal department for this scheme.
3. IT/ITES in Northeastern States
4. This component focuses on setting up BPOs in every north-eastern state to facilitate ICT enabled growth in these states. DeitY is the nodal department for this scheme.

North East BPO Promotion Scheme (NEBPS)

The Indian BPO industry has witnessed significant growth over the past years and India has gradually emerged as one of the preferred BPO destinations globally. Several factors including operational cost effectiveness, availability of skilled manpower and ever-increasing demand for employment opportunities have increasingly contributed to the growth of BPO industry in the country. However, the BPO industry has largely been concentrated in and around large (Tier-I) cities where skilled manpower drawn from various parts of the country including NE Region seek employment.

Pillar 9 - EARLY HARVEST PROGRAMMES

Early Harvest Programme basically consists of those projects which are to be implemented within short timeline. The projects under the Early Harvest Programme are as follows:

IT Platform for Messages

A mass messaging application has been developed by MeitY that will cover elected representatives and all Government employees. Over 1.36 crore mobiles and 22 lakh emails are part of the database.

Government Greetings to be e-Greetings

A basket of e-Greeting templates have been made available. Crowd sourcing of e-Greetings through the MyGov platform has been ensured.

Biometric attendance

It will cover all Central Government offices in Delhi to begin with. Over 40,000 Government employees from 150 organisations have already registered on the common Bio-metric attendance portal at http://attendance.gov.in. (Link is external) Over 1000 bio-metric attendance terminals are under installation at entry gates of various Central Government buildings which will be connected with Wi-Fi Access points and mobile connectivity.

Wi-Fi in All Universities

All universities on the National Knowledge Network (NKN) shall be covered under this scheme. Ministry of Human Resource Development (MHRD) is the nodal ministry for implementing this scheme.

Secure Email within Government

Email would be the primary mode of communication within government. The government e-mail infrastructure would be suitably enhanced and upgraded. Up gradation of the infrastructure under Phase-I for 10 lakh employees has already been completed. Under Phase-II, infrastructure would be further upgraded to cover 50 lakh employees by March 2015 at a cost of Rs.98 Cr. MeitY is the nodal department for this scheme.

PROPOSED IMPACT OF DIGITAL INDIA

Economic impact

According to analysts, the Digital India plan could boost GDP up to $1 trillion by 2025. It can play a key role in macro-economic factors such as GDP growth, employment generation, labour productivity, growth in number of businesses and revenue leakages for the Government.

As per the World Bank report, a 10% increase in mobile and broadband penetration increases the per capita GDP by 0.81% and 1.38% respectively in the developing countries. India is the 2nd largest telecom market in the world with 915 million wireless subscribers and world's 3rd largest Internet market with almost 259 million broadband users. There is still a huge economic opportunity in India as the tele-density in rural India is only 45% where more than 65% of the population lives. Future growth of telecommunication industry in terms of number of subscribers is expected to come from rural areas as urban areas are saturated with a tele-density of more than 160%.

Social impact

Social sectors such as education, healthcare, and banking are unable to reach out to the citizens due to obstructions and limitations such as middleman, illiteracy, ignorance, poverty, lack of funds, information and investments. These challenges have led to an imbalanced growth in the rural and urban areas with marked differences in the economic and social status of the people in these areas.

Modern Information and Communications Technology (ICT) makes it easier for people to obtain access to services and resources. The penetration of mobile devices may be highly useful as a complementary channel to public service delivery apart from creation of entirely new services which may have an enormous impact on the quality of life of the users and lead to social modernization.

Mobile and internet banking can improve the financial inclusion in the country and can create win-win situation for all parties in the value-chain by creating an interoperable ecosystem and revenue sharing business models. Telecom operators get additional revenue streams while the banks can reach new customer groups incurring lowest possible costs.

Factors such as a burgeoning population, poor doctor patient ratio (1:870), high infant mortality rate, increasing life expectancy, fewer quality physicians and a majority of the population living in remote villages, support and justify the need for tele medicine in the country. M-health can promote innovation and enhance the reach of healthcare services.

Environmental impact

The major changes in the technology space will not only brought changes to the economic system but will also contribute to the environmental changes. The next generation technologies will help in lowering the carbon footprint by reducing fuel consumption, waste management, greener workplaces and thus leading to a greener ecosystem. The ICT (Information and Communications Technology) sector helps in efficient management and usage of scarce and non-renewable resources.

Cloud computing technology minimizes carbon emissions by improving mobility and flexibility. The energy consumption can be decreased from 201.8 terawatt hour (TWH) in 2010 to 139.8 TWH in 2020 by higher adoption of cloud data centers causing a 28% reduction in carbon footprint from 2010 levels.

CONCLUSION

A digitally connected India can help in improving social and economic condition of people through development of non-agricultural economic activities apart from providing access to education, health and financial services. However, it is important to note that ICT (Information and Communications Technology) alone cannot directly lead to overall development of the nation. The overall growth and development can be realized through supporting and enhancing elements such as literacy, basic infrastructure, overall business environment, regulatory environment, etc. The Digital India program is just the beginning of a digital revolution, once implemented properly it will open various new opportunities for the citizens.

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