Digital India- Opportunities and Challenges

Vanita[1], Karuna Sachdeva[2]
Assistant professor, Dept. of Commerce, I.B.P.G. College, Panipat[1]
Assistant professor, Dept. of Commerce, I.B.P.G. College, Panipat[2]

***Abstract*- We are living in arena of technologies and digital world. Digital India is an innovative thought of Mr. Narendra Modi 's government. It is an initiative of government of India to integrate the government Departments and the people of India. It aims at ensuring that the Government services are made available to citizens electronically by reducing paper work. It is an initiative to transform the country into digitally empowers knowledge economy. The motive behind the concept is to connect rural areas with high speed internet network and improving digital literacy. The programme weaves together a large number of ideas and thought into a single, comprehensive vision so that each of them is seen a part of larger goal. It is coordinated by Deity, implemented by the entire government- both at the centre and state. Electronic commerce refers to wide range of online business activities for products and services. E-commerce is the use of electronic communications and digital information processing technology in business transactions to create, transform and redefine relationships for value creation between organizations and individuals. This paper attempts to highlight the different challenges faced by the Digital India Programme. It also describes the different opportunities of the programme for the people of the country.**

Keywords:- Digital India, E-Commerce, Challenges, Opportunities

I. INTRODUCTION

Digital India was launched by the Prime Minister of India Narendra Modi on 1 July 2015 - with an objective of connecting rural areas with high-speed Internet networks and improving digital literacy by making digital resources/services available in Indian languages.

The vision of this programme is inclusive growth in areas of electronic services, products, manufacturing and job opportunities etc. It aims at preparing the India for the knowledge based transformation and delivering good governance to citizens by involving- both Central Government and State Government. This programme is coordinated by Department of Electronics and Information Technology (DeitY) and will impact ministry of communications & IT, ministry of rural development, ministry of human resource development, ministry of health and others .DeitY would create four senior positions within the department for managing the programme say additional secretary, Digital India; joint secretary, infrastructure development; joint secretary, capacity building and digital enablement; and joint secretary, IT applications in uncovered areas & process re-engineering. It would ensure that government services are available to citizens electronically. It would also bring in public accountability through mandated delivery of government's services electronically.

The Government of India entity Bharat Broadband Network Limited (BBNL) which executes the National Optical Fiber Network project will be the custodian of Digital India (DI) project.

The programme will be implemented in phases from 2014 till 2018. The source of funding for most of the e-Governance projects at present is through budgetary provisions of respective ministries/departments in the central or state governments. Requirements of funds for individual project(s) for Digital India will be worked out by respective nodal ministries/departments but according to government estimate it will cost Rs 113,000 crore. .

II. OBJECTIVES OF THE STUDY

The paper has the following objectives:

- To Study the concept of Digital India Programme.
- To study the opportunities of the programme for the people of the country.
- To study the various challenges faced by the Digital India Programme in its implementation.

III. RESEARCH METHODOLOGY

For this research paper, secondary data analysis is usually conducted to gain in-depth understanding of the"Digital India" initiative. Mostly the paper is based on the information retrieved from the internet via journals, research papers on the same subject

IV. LITERATURE REVIEW

There have been various researches on different aspects of the initiative ranging from the economical to social and ethical dimensions. Some of these researches retrieved through internet searches have been reviewed here.

Microsoft CEO, Satya Nadella intends to become India's partner in Digital India program. He said that his company will set up low cost broadband technology services to 5lakhs villages across the country.

Arvind Gupta intends to say that Digital India movement will play an important role in effective delivery of services, monitoring performance managing projects, and improving governance.

Prof. Singh began with the basic overview of what Digital India entails and led a discussion of conceptual structure of the program and examined the impact of "Digital India" initiative on the technological sector of India. Heconcluded that this initiative has to be supplemented with amendments in labour laws of India to make it a successful campaign.

Sundar Pichai, Satya Nadella, Elon Musk researched about Digital India and its preparedness to create jobs opportunities in the information sector. He concluded that creating new jobs should be continued with shifting more

workers into high productivity jobs in order to provide long term push to the technological sector in India.

VISION OF DIGITAL INDIA PROGRAMM :

Digital infrastructure as a utility to every citizen infrastructure.One of the key areas on which the vision of Digital India is centred is "digital infrastructure as a utility to every citizen".As per this vision,the Indian villagers are digitally connected through broadband and high speed internet, then delivery of electronic government services to every citizen, targeted social benefits, and financial inclusion can be achieved in reality. A key component under this vision is high speed internet as a core utility to facilitate online delivery of various services. It is planned to set up enabling infrastructure for digital identity, financial inclusion and ensure easy availability of common services centres. It is also proposed to provide citizens with "digital lockers"where documents issued by Government departments and agencies could be stored for easy online access.

Governance and services on demand

Governance and services on demand which will be available in real time for online and mobile platforms, seamlessly integrated across departments and jurisdictions. All citizen documents to be made available on the cloud platform;as a result, citizens will not be asked to produce such documents for availing services. In addition, the provision of cashless electronic transactions will help generate business. Geographical Information Systems (GIS) will be integrated with the development schemes.

Digital empowerment of citizens

Universal digital literacy; All digital resources universally accessible; All government documents/certificates to be available on the Cloud; Availability of digital resources/services in Indian languages; Collaborative digital platforms for participative governance; Portability of all entitlements for individuals through the cloud.

KEY PROJECTS OF DIGITAL INDIA PROGRAMME:

The Programme symbolizes the Government of India's vision for connecting and empowering 125 crore citizens; creating unprecedented levels of transparency and accountability in governance; and leveraging technology for quality education, health care, farming, financial inclusion and empowering citizens. Under the 'Digital India' Programme, technology will play a central role to achieve easy, effective and economical governance.

Several projects/products have already launched or ready to be launched as indicated below:

e-Books Platform (eBasta) – is an electronic platform of e-Books for schools. Currently, 501 e-Contents and 15 eBasta (collection of books) are available on this platform.

- e-Sign – would facilitate digitally signing a document through online authentication mechanism. So far, 1.75 lakh e-Signatures have been issued. e-Mudhra and CDAC are empanelled to offer e-Sign services.
- e-Greetings Portal –It is being used to send e-Greetings by Government departments on various occasions like Gandhi Jayanti, Diwali, Teacher day, Independence day, etc. Over 10 lakh e-Greetings have been sent through this portal. Over 42 greeting categories and 450 cards are available on the portal to send greetings in electronic form.
- Digital Locker System –Digital Locker facility will help citizens to digitally store their important documents like PAN card, passport, mark sheets and degree certificates. It aims at eliminating the use of physical documents and enables the sharing of verified electronic documents across government agencies. Currently, over ten lakh digital lockers have been opened where citizens have self-uploaded over 11.8 lakh documents and 52.09 lakh documents have been issued.
- Jeevan Pramaan – Pensioners can now conveniently submit their life certificates online through this portal. The certificates are stored in the Life Certificate Repository for making it available anytime & anywhere for pensioners and the Pension Disbursing Agencies. Over eight (8) lakh pensioners are already registered on this portal.
- e-Hospital –It aims to reduce the anxiety of patients and their attendees by making available various online services such as appointment, accessing diagnostic reports, payment of fees and enquiring blood availability, etc. e-Hospital is currently functional in four Central Government hospitals namely AIIMS, Dr. RML Hospital, Safdarjung & NIMHANS hospitals, and being implemented in 11 major Central Government hospitals.
- National Scholarships Portal – It is a one stop solution for end to end scholarship process right from submission of student application, verification, sanction and disbursal to end beneficiary for all the scholarships provided by the Government of India. Over 67 lakh applications have been submitted on this portal for 19 registered scholarship schemes of 7 Ministries / Departments.
- National Digital Literacy Mission –It aims to provide IT training to enable the citizens to use IT and related applications for their livelihood earning and employability has been approved. The Scheme was launched by Hon'ble Prime Minister at Ranchi, Jharkhand on 21st August, 2014.
- Digitize India Platform –It allows government organizations in the country to digitize its records and documents through contributions of ordinary citizens. Till now, over 14,088 contributors; 2.6 lakhs documents & 24.1 Lakh snippets have been utilized for digitization.
- MyGov Platform – It acts as a medium for citizens to exchange ideas/ suggestions with the Government. Through this platform, the Government of India gets feedback, inputs, advice and ideas from citizens for policy decisions, new initiatives like Digital India, Swachch Bharat, Clean Ganga, Make in India, Skill Development, etc. MyGov is growing steadily, with over 15.8 lakh users already registered. MyGov has conducted over 750 activities and is receiving more than ten thousand (10,000) posts per week on various issues.
- Approval of new Mission Mode Projects – Thirteen new Mission Mode Projects (MMPs) have been approved to offer citizens a wider range of electronic services. These MMPs include Financial Inclusion, Rural Development, Social

Benefits, e-Sansad, e-Vidhaan, Agriculture 2.0, Roads & Highways Information System (RAHI), Central Armed Para Military Forces (CAPF), Women & Child Development, National Mission on Education through ICT (NMEICT), National GIS (NGIS), e-Bhasha and Urban Governance.

- Rural BPO Scheme – To facilitate ICT enabled employment generation throughout the country, BPOs would be set up in the north-eastern states under North East BPO Promotion Scheme (around 5000 seats) and in Tier II and Tier III cities of the country under the India BPO Promotion Scheme (over 48,000 seats). The India BPO Promotion Scheme will create an employment opportunity for about 1,45,000 persons. In the Expression of Interest issued, 78 companies have shown interest for 1,25,000 seats in 190 locations of the country.
- DISHA (Digital Saksharta Abhiyan) –Its objective is to make additional 42.5 lakh persons digitally literate in a period of four years. Under the Disha and National Digital Literacy Mission, 12.25 lakh persons have been trained and 4.75 lakh candidates have been certified (by NIELIT).
- Revamping of Existing Mission Mode Projects (MMPs) – Some of the existing MMPs were developed many years ago. Their software applications are being assessed and revamped by leveraging new technology platforms, such as Cloud, Mobile, GIS, etc., to facilitate delivery of integrated services involving multiple departments, and enhance the quality of services that can efficiently cater to the needs of citizens.

NINE PILLARS OF DIGITAL INDIA:

1. Broadband Highways

- This covers three sub components, namely Broadband for All Rural, Broadband for All Urban and National Information Infrastructure.
- Under Broadband for All Rural, 250 thousand village Panchayats would be covered by December, 2016. DoT will be the Nodal Department and the project cost is estimated to be approximately Rs. 32,000 Cr.
- Under Broadband for All Urban, Virtual Network Operators would be leveraged for service delivery and communication infrastructure in new urban development and buildings would be mandated.
- National Information Infrastructure would integrate the networks like SWAN, NKN and NOFN along with cloud enabled National and State Data Centres. It will also 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 and the project cost is estimated to be around Rs 15,686 Cr for implementation in 2 years and maintenance & support for 5 years.

2. Universal Access to Mobile Connectivity

- The initiative is to focus on network penetration and fill the gaps in connectivity in the country.
- All together 42,300 uncovered villages will be covered for providing universal mobile connectivity in the country.
- DoT will be the nodal department and project cost will be around Rs 16,000 Cr during FY 2014-18.

3. Public Internet Access Programme

- The two sub components of Public Internet Access Programme are Common Service Centres and Post Offices as multi-service centres.
- Common Service Centres would be strengthened and its number would be increased from approximately 135,000 operational at present to 250,000 i.e. one CSC in each Gram Panchayat. CSCs would be made viable, multi-functional end-points for delivery of government and business services. DeitY would be the nodal department to implement the scheme.
- 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.

4. e-Governance: Reforming Government through Technology

Government Business Process Re-engineering using IT to improve transactions is the most critical for transformation across government 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, tracking of their status and interface between departments should be provided.
- Use of online repositories e.g. school certificates, voter ID cards, etc. should be mandated so that citizens are not required to submit these documents in physical form.
- Integration of services and platforms, e.g. UIDAI, Payment Gateway, Mobile Platform, Electronic Data Interchange (EDI) etc. should be mandated to facilitate integrated and interoperable service delivery to citizens and businesses.
- Electronic Databases – all databases and information should be electronic and not manual.
- Workflow Automation Inside Government – The workflow inside government departments and agencies should be automated to enable efficient government processes and also to allow visibility of these processes to the citizens.
- Public Grievance Redressal - IT should be used to automate, respond and analyze data to identify and resolve persistent problems. These would be largely process improvements.

5. e-Kranti - Electronic Delivery of Services

There are 31 Mission Mode Projects under different stages of e-governance project lifecycle. Further, 10 new MMPs have been added to e-Kranti by the Apex Committee on National e-Governance Plan (NeGP) headed by the Cabinet Secretary in its meeting held on 18th March 2014.

- Technology for Education – e-Education

All Schools will be connected with broadband. Free wifi will be provided in all secondary and higher secondary

schools (coverage would be around 250,000 schools). A programme on digital literacy would be taken up at the national level. MOOCs –Massive Online Open Courses shall be developed and leveraged for e-Education.

- Technology for Farmers
  This would facilitate farmers to get real time price information, online ordering of inputs and online cash, loan and relief payment with mobile banking.
- Technology for Security
  Mobile based emergency services and disaster related services would be provided to citizens on real time basis so as to take precautionary measures well in time and minimize loss of lives and properties.
- Technology for Financial Inclusion
  Financial Inclusion shall be strengthened using Mobile Banking, Micro-ATM program and CSCs/ Post Offices.
- Technology for Justice
  Interoperable Criminal Justice System shall be strengthened by leveraging e-Courts, e-Police, e-Jails and e-Prosecution.
- Technology for Planning
  National GIS Mission Mode Project would be implemented to facilitate GIS based decision making for project planning, conceptualization, design and development.
- Technology for Cyber Security
  National Cyber Security Co-ordination Center would be set up to ensure safe and secure cyber-space within the country.

6. Information for All

- Open Data platform and online hosting of information & documents would facilitate open and easy access to information for citizens.
- Government shall pro-actively engage through social media and web based platforms to inform citizens. MyGov.in has already been launched as a medium to exchange ideas/ suggestions with Government. It will facilitate 2-way communication between citizens and government.
- Online messaging to citizens on special occasions/programs would be facilitated through emails and SMSes.
- The above would largely utilise existing infrastructure and would need limited additional resources.

7. Electronics Manufacturing

Target *NET ZERO* Imports is a striking demonstration of intent.
This ambitious goal requires coordinated action on many fronts

- Taxation, incentives
- Economies of scale, eliminate cost disadvantages
- Focus areas – Big Ticket Items FABS, Fab-less design, Set top boxes, VSATs, Mobiles, Consumer & Medical Electronics, Smart Energy meters, Smart cards, micro-ATMs
- Incubators, clusters
- Skill development
- Government procurement
  There are many ongoing programs which will be fine-tuned. Existing structures are inadequate to handle this goal and need strengthening.

8. IT for Jobs

- 1 Cr students from smaller towns & villages will be trained for IT sector jobs over 5 years. DeitY would be the nodal department for this scheme.
- BPOs would be set up in every north-eastern state to facilitate ICT enabled growth in these states. DeitY would be the nodal department for this scheme.
- 3 lakh service delivery agents would be trained as part of skill development to run viable businesses delivering IT services. DeitY would be the nodal department for this scheme.
- 5 lakh rural workforce would be trained by the Telecom Service Providers (TSPs) to cater to their own needs. Department of Telecom (DoT) would be the nodal department for this scheme.

9. Early Harvest Programmes

- IT Platform for Messages
  A Mass Messaging Application has been developed by DeitY that will cover elected representatives and all Government employees. 1.36 Cr mobiles and 22 Lakh emails are part of the database.
- Government Greetings to be e-Greetings
  Basket of e-Greetings templates have been made available. Crowd sourcing of e-Greetings through MyGov platform has been ensured. E-Greetings portal has been made live on 14th August 2014.
- Biometric attendance
  It will cover all Central Govt. Offices in Delhi and is already operational in DeitY and has been initiated in the Department of Urban Development. On-boarding has also started in other departments.
- Wi-Fi in All Universities
  All universities on the National Knowledge Network (NKN) shall be covered under this scheme. Ministry of HRD is the nodal ministry for implementing this scheme.
- Secure Email within Government
  Email would be the primary mode of communication.
  Phase-I upgradation for 10 lakh employees has been completed. In Phase II, infrastructure would be further upgraded to cover 50 lakh employees by March 2015 at a cost of Rs 98 Cr. DeitY is the nodal department for this scheme.
- Standardize Government Email Design
  Standardised templates for Government email are under preparation and would be ready by October 2014. This would be implemented by DeitY.
- Public Wi-fi hotspots
  Cities with population of over 1 million and tourist centres would be provided with public wi-fi hotspots to promote digital cities. The scheme would be implemented by DoT and MoUD.
- School Books to be eBooks
  All books shall be converted into eBooks. Min. of HRD/ DeitY would be the nodal agencies for this scheme.
- SMS based weather information, disaster alerts
  SMS based weather information and disaster alerts would be provided. DeitY's Mobile Seva Platform is already ready and available for this purpose. MoES (IMD) / MHA

(NDMA) would be the nodal organizations for implementing this scheme.

- National Portal for Lost & Found children

This would facilitate real time information gathering and sharing on the lost and found children and would go a long way to check crime and improve timely response.
DeitY/ DoWCD would be the nodal departments for this project

OPPORTUNITIES PROVIDED BY DIGITAL INDIA:

- Employment
- Job creation: With an estimated overall cost of INR 1,000 billion in ongoing schemes and INR 130 billion for proposed and new schemes, Digital India aims to create 17 million direct and 85 million indirect jobs by 2019.46
- Digital Training Programmes: The initiatives towards training and digital literacy by the government and private sector players such as NDLM, Digital Literacy Mission etc. have been successful in reaching out to millions of people. This has resulted in an increase in employability of the trained personnel, higher adoption of digital technologies and empowerment of a large section of society.
- Universal Accessibility: The DigiLocker service has provided universal accessibility to citizens, by allowing then to access and share documents. Currently, there are approximately 4 million registered users with 5.0 million48 documents uploaded on the digital locker facility.
- Healthcare: Digital India has the potential to provide solutions to problems such as poor doctor patient ratio (1:1674)54, fewer quality physicians, insufficient healthcare infrastructure, lack of equal access to healthcare facilities and advice (24% in rural areas)55, and high healthcare costs. The e-hospital program is increasing delivery speed of healthcare services by allowing patients to book appointments online. Social
- hence there will be imminent resistance from the working staff.
- Delay in development of infrastructure: One of the biggest challenges faced by the Digital India programme is the slow progress of infrastructure development: • The BharatNet project was approved in October 2011, with a two year implementation target. As of 2016, under 40% of the target has been achieved.13 • Public Wi-Fi penetration remains low. Globally, there is one Wi-Fi hotspot for every 150 citizens. For India to reach that level of penetration, over 8 million hotspots are required of which only about 31,000 hotspots are currently available.14 • While the project has seen delays, the exercise needs to be reinforced with both funds and involvement of senior government functionaries towards making it happen on a 'war footing'
- Contracting: Implementation of the Digital India program has been hampered by contracting challenges such as the following:
  Several projects assigned to PSUs are delayed given challenges related to skills, experience and technical capabilities.Several RFPs issued by the government are not picked up by competent private sector organizations since they are not commercially feasible

HOW TO OVERCOME THE CHALLENGES FOR SUCCESSFULL IMPLEMNTATION OF DIGITAL INDIA PROGRAMME:

- Digital Literacy: Despite rising smartphone penetration and internet user base, digital literacy in India has been low. In order for the benefits of the Digital India programme to reach all sections of the population, improving digital literacy is imperative

- Skill Building: A strong skill base is required to support the initiatives and services that are envisaged under the Digital India umbrella. Development of technical skills within ministries and state governments will enable the spread of e-governance services, maintenance and upgradation and decision making on all digital initiatives

- Digital Adoption: For Digital India to be successful, all segments of Indian society need to adopt digital technologies. This will not only create demand for Digital India but also achieve its vision of empowering all citizens.

- Defining the role of the private sector: A framework needs to be defined for participation of the private sector in skill development programs which defines the role of the private sector, expectations in terms of investments, content and job guarantees.

- Introduction of digital skill programs at an institutional level: Skill training and digital literacy should be introduced as part of institutional trainings in schools, colleges and universities across India. Curriculum and interactive programmes should be mandated to ensure adequate digital skills of all graduates

- Increase availability of digital infrastructure at rural and remote locations: The speed at which digital infrastructure (especially fiber networks) is being developed needs to be increased. Existing government infrastructure assets (e.g., post offices, government buildings, CSCs) should be further leveraged for provision of digital services at remote locations

V. CONCLUSION

The Digital India program is now in the second year of its existence and several projects under the program have now moved from the planning phase to the execution phase. The project has started showing its impact on the lives of citizens and on businesses. Several schemes of the project have been adoption successfully . The service like DigiLocker is now being used by four million users. The MyGov application which provides a platform for citizens to interact with the government is used by over one million users to interact with the government.India now represents the second largest internet user base in the world. This provides a significant opportunity to transform the lives of the citizens through digital technologies. The Digital India program is likely to benefit citizens over the next few years by generating employment opportunities, increasing speed

and quality of service delivery and enhancing social and financial conclusion. Businesses will benefit by realizing higher productivity, an improved ease of doing business and a boost in innovation and investments. The adoption of next generation technologies under Digital India such as telepresence .