

Status and Scope of Digitalisation in India

Shweta*, Shachi**

Abstract

With the progressing strides of global digitalisation, it has become imperative to inculcate this concept in Indian trade, economy, research and development so as to keep pace with the international challenges. A study has been made on the existing status of digitalisation in our country through information available and efforts have been made to evaluate the avenues of its further propagation in all walks of life so as to find out the gaps coming in the way of developmental strategies and suggest redressal measures for more austerity in Indian economy, ultimately affecting socio-economic status of our rural masses. Exhaustive review of the present status and organisational structure dealing with digitalisation in India suggested further scope for strengthening this important aspect for more effective e-governance, demographic decision making, resource-target oriented formulation and implementation of public funded schemes to help overall growth of economically viable India.

Keywords: Digital India, Social Empowerment, Digitalisation, DigiLocker

Introduction

Digitalisation is a concept developed after many research accomplishments and technological innovations. It is mainly aimed at quicker compilation/ analysis and exploitation of database as well as facilitation of end users in their day-to-day and workstation lifestyle. In India, This has been recently initiated by government of India with objective of transforming the surroundings of the public and providing better services through extensive use of Internet. Digital India programme was inaugurated by our Prime Minister on 1st July 2015. It envisaged for digital empowerment of the Indian society. It is expected to render better connectivity among rural areas and help in propagation of awareness about newer technologies available for enhancing agricultural as well as industrial productivity.

For the world, digitalisation is very old concept. But in India, the circumstances for this innovation were probably not so favourable due to less awareness about information technology among citizens. The concept of e-governance in India progressed in mid-90s with emphasis on citizen-centric services. After that, many states started various e-governance projects but, they were not as impactful as desired. Some other projects were also successfully implemented across the whole country, in spite of that this concept has not been able to make the fantastic impact on the country. For connecting India, globally, digital India programme was launched. It covered various proposals and incentives given to companies, basically the manufacturing units including domestic and foreign based, to invest in India and make the country a digital destination. The main aim of digitisation in India is to reduce unemployment and enhancing practical knowledge with the collaboration of technology and concept of communication.

The campaign's aim is to bridge the communication gaps of customers, traders and government agencies and therefore help to connect/share information on issues and concerns faced thereof. So, this initiative is focussed to offer more avenues of inter and intra-regional connectivity with prospects of quicker implementation of governmental policies coupled with benefits and incentives via the campaign. Simultaneously the initiative is designed to create jobs and enhance skill development which will ultimately lead to increase in GDP and revenues from taxes. Objectives of this study have been outlined as under:

1. To study chances of bringing technological innovation and general concept of connectivity together to make an important impact on all aspects of governance.
2. To analyse how Government of India (GOI) will provide real time services to the nation.

* Assistant Professor, Department of Management, SSVGI, Bareilly, Uttar Pradesh, India. Email: 92sweta@gmail.com

** Research Scholar, Department of Commerce, MJPRU, Bareilly, Uttar Pradesh, India.

3. To find out how digital India programme works for improving the quality of life of its citizens by providing e-services with the help of Internet connection.
4. To study the effectiveness of working of government services with practical solutions and innovative ideas to accomplish the vision of a digital India-a reality.

Methodology

Review and analysis of secondary data was performed on the basis of primary information retrieved from journals/publications and expert opinions etc. available on Internet. This secondary data analysis has been utilised for in-depth understanding of the “Digital India” initiative. Other relevant data exploitations at various levels of aggregation were made to conduct the requirement analysis of the information particularly from rural area and mostly the paper is based on the information.

Main Focus of Digitalisation

As we know, digitalisation is a very innovative concept. The main focus points of emerging digitalisation are as follows:

1. Providing new technological infrastructure to every citizen of the country. It is comprised of:
 - High speed Internet networks, as a main element, shall be made available to the public privately.
 - Any individual can participate digitally and financially through bank account and mobile phone at individual level.
 - Easy approach to a common service centre within their nearby surroundings.
 - Cradle to grave digital identity - lifelong, unique, authenticable and online.
 - Provide secure, safe and reasonable Internet access within the country.
2. Empowering every citizen with various digital blessings for accomplishing their requirement easily. It includes:
 - Educate citizens about digitalisation at universal level.
 - Transportability of all entitlements through the Cloud for individuals.

- To provide each and every digital resources universally.
 - All government certificates/ documents to be available on the Cloud.
 - Provide comfortable and flexible digital platform to enhance collaborative participative governance in the country.
 - Providing digital services in various Indian languages.
3. Improve accessibility of all government services on demand. These are concerned with the following:
 - Enable the easy communication with various government departments by all citizens through single window i.e. through Internet.
 - Digitalisation helps in improving various business conditions by providing real time government services.
 - Providing government services online with the help of Internet networks through personal computers or mobile phones.
 - Record of every citizen must be available on Internet for easy recognition of his/her identity.
 - Facilitating all the economic transactions cashless for fair dealing.

Various Initiatives for Connecting Rural Areas with Digital India Mission

Digital India programme was launched by the Prime Minister of India, with an objective of providing fast and easy accessibility of all government services to rural areas of the country with the help of high-speed Internet networks. Digital India programme also pays attention towards educating the citizens of the country about digitalisation concept. The Digital India programme emerged with the main three centre points, viz. digital infrastructure as a utility to every citizen, governance & services on demand and digital empowerment of citizens.

The Government of India entity Bharat Broadband Network Limited (BBNL) which executes the National Optical Fibre Network project will be the custodian of Digital India (DI) project. BBNL had ordered United Telecoms Limited to connect 250,000 villages through

GPON to ensure FTTH based broadband (source: https://en.wikipedia.org/wiki/Digital_India). This step will accelerate the digital India programme towards the accomplishment of its objectives as soon as possible.

According to data available on Wikipedia, the government is going to create 28,000 seats of BPOs in different states of the country. It is also planning to establish at least one common service centre in every gram panchayats of various states.

The 2016 Union Budget of India announced 11 technology initiatives to catch tax evaders, establishing various opportunity for IT companies. Digital Literacy Mission will cover six crore rural households. According to the Union Budget, government planned to connect 550 farmer markets in the country under Digital India programme.

As we know, Most of the Indian rural population does not have knowledge of English language. Due to this hurdle, more than 90% of rural population is not able to take benefits of Digital India Campaign. For eliminating this problem, the GOI is planning to provide email services in various regional languages of the country. It had already given direction to various email provider companies like, Gmail, Office and Rediff, for launching their portals in different Indian languages. Related to this objective, an Indian company, Data Xgen Technologies Pvt Ltd, has launched world's first free linguistic email address under the name 'DATAMAIL' which allows to create email ids in eight Indian languages, English and three foreign languages – Arabic, Russian and Chinese. Over the period of time, the email service in 22 languages will be offered by Data XGen Technologies (according to Wikipedia).

Again in Union Budget 2017, Indian government announced many initiatives to boost Digital India programme. Its main focus is on providing improved Internet access, security towards online payments and some other improved services to the citizens. Some of the main improved services are as follows:

DigiGaon

In Union Budget 2017, the government has announced to allocate 10,000 crores for providing high-speed broadband to more than 1.5 lakh gram panchayats by 2018 to increase easy access of various digital services at minimum cost. Instead of this, some other initiatives have also being announced. 'DigiGaon' is one of them. This initiative will also provide telemedicine, education and knowledge through information technology to the rural areas of India.

Aadhaar PAY

In Union Budget 2017, GOI also launched an extended system of the Aadhaar Enabled Payment System (AEPS), named as Aadhaar Pay. This system is for that part of population who do not have debit cards, mobile wallets and mobile phones. Miss Divita Gupta has mentioned in an article that, a target of 2,500 crore digital transactions through UPI, USSD, Aadhaar Pay, IMPS and debit cards is projected in 2017-18. An additional 10 lakh PoS terminals will need to be set up by banks. They will also be encouraged to introduce 20 lakh Aadhaar-based PoS by September 2017.

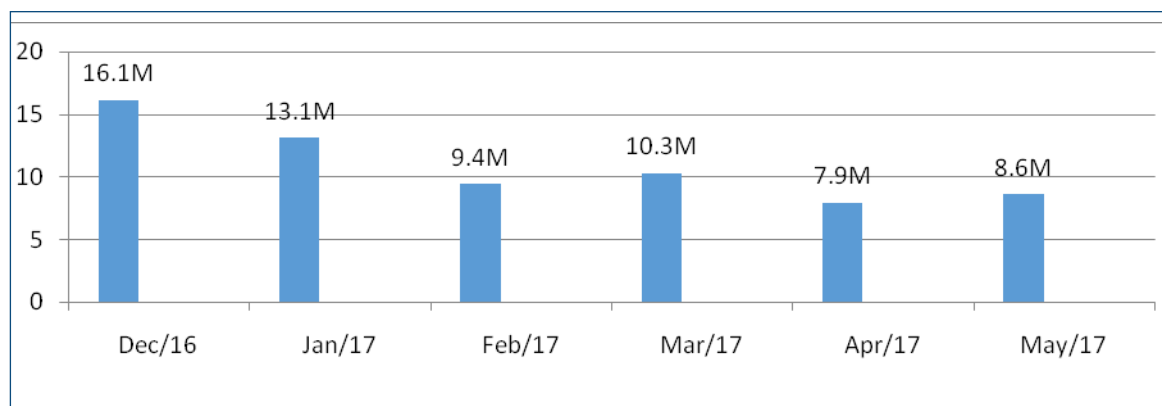


Fig. 1: Aadhaar Generation Trends

Source: <http://www.digitalindia.gov.in>

Online Booking on IRCTC

According to a study, cashless reservations have been increased from 58% to 68% in the last year. Now government abolished IRCTC service charge on online booking to accelerate more online booking.

BHIM App

Government of India has launched a government application to boost cashless financial transactions. In present time, many citizens are taking benefits of BHIM application in their day-to-day life for economic activities. For enhancing the usage of BHIM, the government is going to launch some new schemes: Referral Bonus Scheme for individuals and a Cashback Scheme for merchants.

Facilities Launched for Achieving Aims of Digital India Campaign

Digital India programme emerged as the dream project of Indian government. For accomplishing main objectives of Digital India programme, various services have been launched by the Indian government. Some of the important facilities which will be provided through this initiative are Digital Locker, Attendance.gov.in, MyGov.in, National Scholarship Portal, e-education, e-health, e-sign and Swachh Bharat Mission (SBM) app.

DigiLocker

DigiLocker means digital locker. With the help of DigiLocker, every citizen of the country can store their important documents like PAN card, passport, mark sheets and degree certificates digitally. Everyone can open their account on DigiLocker portal with the help of Aadhaar number. The main aim of this service is to eliminate the risk related to physical movement of original documents. The individual can easily access their electronic documents all over the world.

Attendance.gov.in

Attendance.gov.in is a website, launched by PM Narendra Modi on 1 July 2015. It helps to monitor the attendance record of Government employees on a real-time basis. A Biometric Attendance System (BAS) was introduced under this initiative in various central government offices. It helps in reducing irregular attendance of the employees

in government sector through which productive results can be achieved in efficient manner.

MyGov.in

MyGov.in is a government portal where citizens can discuss about the governance of the Indian government. It emphasizes the satisfaction level of the public towards various actions of the government. Citizens can also provide their ideas to improve the government policies.

SBM Mobile App

Swachh Bharat Mission (SBM) is related to clean the various surroundings throughout the nation. To encourage SBM, government of India launched SBM Mobile application. Much information related to the mission is being circulated with the help of this application.

ESign Framework

To save the time of individual, eSign framework was launched. By using this platform, every citizen can sign a document digitally with the help of Internet networks. For maintaining the security, this framework will be linked with individual's Aadhaar ID.

National Scholarship Portal

In India to avail the scholarship was very lengthy and complicated process. For reducing these complications, GOI launched National Scholarship Portal under Digital India programme. This reduced the channels or stages that one needs to follow. This portal is helpful for taking benefits from all the scholarships provided by the GOI.

E-Sampark

This facility focused on enhancing awareness about, various public services, among Indian citizens. Through e-Sampark government communicates with general public electronically by the means of e-mails and SMSs.

Bharat Net

Bharat Net is the project under which many rural areas will be connected with broadband networks. This initiative will work towards building high-speed digital highways

to connect all 2.5 lakh gram panchayats of country by next year (source: <http://www.bgr.in/news/digital-india>). This would increase the Internet accessibility in Indian rural areas.

E-education

E-education programme emphasized upon the process of providing education with the help of new techniques using Internet networks. With the help of this programme long distance lectures can also be delivered. It reduces the need of physical presence of the lecturers. This programme is beneficial for those areas that are far away from the reach of experienced teachers.

E-health

For providing fast and least expensive health services, e-health programme was introduced. For authentication of this service, it is linked with Aadhaar card numbers of the citizens. With the help of this programme various health services can also be provided in the population areas where timely access is difficult. It helps in getting reports and appointments online. Through this, the patient can choose hospital, date of appointment and can get letter of appointment on his/ her mobile phone through SMS.

Next Generation Network (NGN)

This is a package through which the information is moved upon Internet network in the form of voice, data, video and other type of media. The Next Generation Network is developed in order to manage the information differently with the help of Internet.

Wi-Fi Hotspots

Government has taken many initiatives for providing Wi-Fi connections in the whole country. With the help of BSNL, government has introduced Wi-Fi hotspots within various states of the country. Many tourist places are also facilitated by Wi-Fi under this programme.

Assumptions of Digital India Programme

- i. Various government departments are implementing policies and guidelines in order to facilitate Digital India Programme. All national and state ministries are collaborating with GOI. Many initiatives are

emerged in view of rural development and partial services.

- ii. The present e-governance technique will waive off by implementing new initiatives. It facilitates the use of new technologies like cloud and mobile phones. This integrated and collaborative innovation helps the government in delivering of efficient and effective government e-services.
- iii. States are free to invent and implement services according to their economic needs. They are not bound to follow the same initiatives that are introduced by national government. By following the principles of Digital India programme, every state can innovate its own service portals.
- iv. e-Governance would achieve its main objectives by providing citizen centric services instead of decentralised services.
- v. Digital India programme can be successful only with the execution of government policies efficiently. Each initiative must give productive and customised results.
- vi. Government is ready to go into public-private partnerships whenever it required. Although, there will be proper government control over various partnership actions.
- vii. Various facilities will be linked with Aadhaar Card number of the individuals to maintain security, easy identification and fair dealings.
- viii. According to Digital India portal, the positions of Chief Information Officers (CIO) would be created in at least 10 key Ministries so that various e-governance projects could be designed, developed and implemented faster. CIO positions will be at Additional Secretary/ Joint Secretary level with overriding powers on IT in the respective ministry.

Announcement of Digital India Week

The Digital India Week is announced by Indian PM Narendra Modi on 1 July 2015. In respect of this week, many Indian and foreign CEOs are willing to invest about 225 lakh crore in India under Digital India mission. The amount of the investment is planned to be used in manufacturing of mobile phones and Internet providing equipment at reasonable price itself in Indian market place.

This initiative will help in reduction of unemployment by generating numerous jobs in the field of manufacturing.

Many leaders of different countries supported Digital India programme at various global platforms. Various foreign companies also took some important actions in support of Digital India programme like, Facebook, Google, Microsoft, and Oracle. Facebook's CEO, Mark Zuckerberg, changed his profile picture in support of Digital India. He is also ready to work on providing Wi-Fi hotspots in rural area of India. On the other hand, Google is also planning to facilitate Internet accessibility on approx. 500 railway stations in India. Microsoft is also ready to provide broadband connectivity to five hundred thousand villages in India and make India its cloud hub through Indian data centres. Qualcomm committed to invest US\$150 million in Indian startups. Oracle wants to work towards the projects of digital payments and Smart city.

Steps Taken by States in Support of Digital India Programme

Andhra Pradesh

Andhra Pradesh is going to provide various citizens record online viz., land owners, government employee's salary, mining details etc. it also planning to facilitate online payments of various government services like electricity, water bill, house tax and many more.

Assam

In Assam, all the documents or certificates, as birth certificate, driving license, permanent address verification document, ration card, etc., are available online.

Chandigarh

Chandigarh government is planning to launch e-stamp in place of tangible stamp papers. It is also planning to announce 60 public initiatives for supporting Digital India. It is also moving towards the online registration for the payment of VAT.

Chhattisgarh

It is organising various workshops for improving awareness about Digital India. According to a report, it was the first state that applies e-governance rules. It focused on the digitalisation of rural areas. Many social welfare, education, health, and development facilities are online available. Government services are also provided electronically.

Gujarat

As per the report available on <http://www.financialexpress.com> all 33 collector offices and 13,000 gram panchayats are connected under e-gram project. Gujarat leads chart of e-transactions under e-Transactions Aggregations and Analysis Layer (e-Taal), a central tool that reflects IT usage by states. State Wide Attention on Grievances by Application of Technology (SWAGAT) allows citizens to connect directly with CM. Land records are digitised. All 1.17 cr ration cards are bar-coded.

Haryana

Haryana government launched many electronic services in the state. Digital stamps are launched in place of physical stamps. Birth certificates, caste certificates, etc. are available online.

Himachal Pradesh

State Vidhan Sabha has been paperless since August 2014. All the papers of the house are presented electronically. Media also covers the discussion of the house digitally. The government also launched a project, e-suvidha, to provide various services to the public online. These services include e-certificates viz, caste, age, domicile, etc.

Jammu & Kashmir

Jammu & Kashmir government is also providing e-governance to its public. Most of the public services, including getting a date of birth certificate, registration as a new voter, e-tendering for development projects and execution of employment related schemes, are online available.

Karnataka

Mobile One project was launched in December 2014 to bundle over 600 government services — like application and issuance of birth/death certificates, property registration, tax and bill payments for power, water etc. — into one seamless web location accessible over mobile phones (source: <http://www.financialexpress.com>)

Maharashtra

The Maharashtra government planned to implement “Right to Services Act”. Under this Act, various government services will be provided timely, efficiently and on the fair bases. This will include the facility of e-certificates of age, caste, nationality, domicile, income, senior citizen, etc. The government also launched a portal to solve problems of public related to government services.

Odisha

Odisha government also took many initiatives to become a digitalised state. Different certificates, land ownership related documents, college admissions, mining records, etc. are available on Internet network. Documents related to vehicle like, driving license and vehicle registration certificates are also available digitally. Payment of taxes are also possible through Internet.

Punjab

Electricity bills can be paid through online mode. Many certificates and documents are available electronically. The government is planning to open many opportunities in favour of online services.

Telangana

Telangana government is accepting most of the bill payment through online in for supporting Digital India campaign. Records of many documents are also available online. Government is planning to introduce some other effective e-services in the state.

Uttar Pradesh

Uttar Pradesh government has started many schemes in support of digitalisation. Caste certificates are available on Internet for verification. Examination forms in various

universities are being filled by online mode. Admit cards are also available online. These steps improve the working efficiency of education system. Land sale and purchase records are also available on Internet. Students’ scholarship forms are also been submitted online. Land records are online. Digital registration for the payment of various taxes is being practiced.

West Bengal

Caste certificates are issued online mode. Citizen’s ration cards are also acknowledged with barcodes in support of Digital India Mission. Many payment services are also available digitally. Many schemes of West Bengal state have won the awards in India.

Management Structure of Digital India Programme

The government has established a formal management structure to monitor the various functions covered under Digital India programme. The key points of the management structure are as follows:

1. Formulation and implementation of initiatives under this programme will be observed by a committee which is controlled by the Prime Minister, a Digital India advisory group chaired by the Minister of Communications and IT and an apex committee chaired by the Cabinet Secretary. This committee will help in the execution of policies in various departments.
2. Main elements of programme management structure would be as follows:
 - Cabinet Committee on Economic Affairs (CCEA)
 - An apex committee on Digital India under the chairpersonship of Prime Minister.
 - A Digital India Advisory Group headed by the Minister of Communications and Information technology.
 - An apex committee headed by the Cabinet Secretary for observing the campaign and executing various policies related to Digital India.
 - Expenditure Finance Committee (EFC)/ Committee on Non-Plan Expenditure (CNE) to monitor initiative on the bases of finance involved. The EFC/ CNE headed by Secretary Expenditure.

- Council of Mission Leaders on Digital India headed by Secretary.
 - Institutional mechanism of Digital India at state level would be headed by State Committee on Digital India by the Chief Minister. State/ UT apex committees on Digital India headed by chief secretaries would be established at State/UT level to allocate required resources, set priority amongst projects at state level.
3. Project Management Information System must be followed for every new or existing digital initiative. This system has the overall record of every project right from the starting of idea to the post execution results. It will help in developing new policies regarding Digital India programme.
 4. Programme management structure is being tried to collaborate different digitalised initiatives between national and state level.

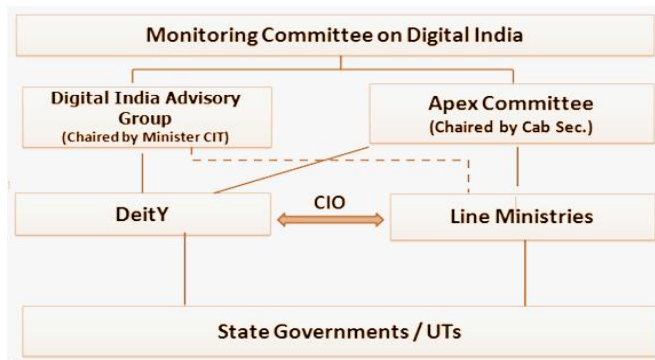


Fig. 2: Institutional Mechanism at National Level

Source: <http://digitalindia.gov.in>

Current Status of Digital India Programme

For proper execution and implementation of Digital India programme, an apex committee has been constituted. This committee is headed by the Cabinet Secretary and the Digital India Advisory Group, chaired by the Minister of Communications and Information Technology. The first meeting of this committee on the Digital India programme was held on 26.11.2014. The second meeting of this committee on the Digital India programme was held on 09.02.2015. The country is achieving the objectives of Digital India Campaign by all important decisions made by the committee.

Status of Implementation of Various Initiatives

All the initiatives, programmed under Digital India Campaign have been achieving its targets on time whether these are establishing and expanding of ICT infrastructure or delivery of various services. Majority of the initiatives are planned to be realised within the next three years. The necessary actions have been planned for all those projects which are marked for first execution.

Digital India programme is process of integrating existing projects with new and modern technology. Under this programme, the government is practicing to enhance collaboration between technology and actual need of the country. It launched a portal to increase the public participation in governance, named as “myGov”. Through this, general public can give important suggestions for improving the quality of numerous government initiatives. Through digitalisation, government is trying to deliver fair, fast and, real-time services. The government is also paying attention to increase online or cashless financial transactions so that the problem of “kaala dhan” can be controlled. With the passage of time GOI is organising various workshops and seminars to improve the literacy level about Digitalisation concept in Indian population.

Conclusion

Exhaustive review of the present status and organisational structure dealing with digitalisation in India suggested further scope for strengthening this important aspect for more effective e-governance, demographic decision making, resource-target oriented formulation and implementation of public funded schemes to help overall growth of economically viable India.

Through this paper, it can be concluded that Digital India is a refreshing innovation and a refreshing effort to combine technology and connectivity for giving a new life to all government services. It was quite the need of the hour for the weakened technological sector.

The Government of India will definitely achieve reasonable growth in all aspects with the Digital India programme.

However, it requires many amendments for making the programme successful after removing all the hindrances. Many government programmes and workshops are

required to educate the citizens about various government services that are being provided under Digital India programme. India should focus more on developing domestically led connectivity, promoting research and innovation-led development to establish itself strongly on the international stage as an economic superpower and particularly for bringing a technological revolution in the country.

References

- <http://digitalindia.gov.in/content/programme>
- https://en.wikipedia.org/wiki/Digital_India
- <http://www.bgr.in/news/digital-india-10-important-initiatives-launched-by-narendra-modi-today/>
- <https://www.bigdecisions.com/article/budget-2017-highlights-digital-india-in-the-horizon>
- <http://www.financialexpress.com/economy/digital-india-push-what-are-the-significant-steps-states-have-taken/95672/>