Digital India : An Insight, Opportunities and Challenge

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ABSTRACT

Digital India is a programme of Government of India which refers to transforming of Indian society and Indian civilization into a powerful digitally awareness about economy. This agenda aims to incorporate common people with several Government departments and provides integrated services to the Indian citizen through electronic or digital mode. Digital India is an initiative of Indian Government to assure the people that the entire Government facilities are absolutely accessible to every individual by electronic means. It is a universal truth that every modernization or innovation have two sides one is advantageous and other is dangerous. Same as in the digital India course of action also have some drawbacks, till the achievement of objectives. So, this paper is trying to explain the digital India programme with its opportunities and limitations.

Keywords : Digital India, Civilization, Economy, Incorporate, Integrated, Modernization.

I.   INTRODUCTION

Basically, Digital India is an agenda to transform India into an efficient and powerful digital community. In nowadays main priority of Government of India is to the Digitalize the Indian society with in an umbrella programme to make over India into a digitally empowered society. The forthcoming signal of rapid development in economy, India would include widespread acceptance of technology in all fields of the economy. Aim of Digital India is to empower the people to avail all Governmental services with minimally efforts and to suitably work together with the Government. Through Digital India it is expecting to not only increase economic enlargement but also to develop the lives of Indian citizen.

Digital India is a campaign launched as on 1 July 2015 by the Indian Government to ensure Government services are made available to citizens electronically by improved online infrastructure and by increasing Internet connectivity or by making the country digitally empowered in the field of technology.[1][2][3]

Digital India initiative consist strategies to connect rural areas with high speed internet networks. It is Surroundings' three core segments first is expansion of safe and stable digital infrastructure, second is digitally deliverance of Government services and third is collective digital literacy.

Services deliverance by the use of information and communication technologies is an important part of digital India which makes the proposal as a technical led facilitating programme for people. [4]

In recent digital era there are several innovations and technological expansions that assist to get better civilian's life improved and quick in numerous ways. The punch line of digital India programme "*power to empower*" is clearing up its mean itself.[5]

The advisory group of digital India will be leaded by the cabinet -secretary and supervise through prime minister's office. Digital India initiatives originally

designed and programmed through e-Governance task. [6] The Digital India initiative finds to put down importance on e-Governance and make over India into a digital empowered society. It is proposed at Rs 1,13,000 crore that will organize the India for skill based revolution. The Department of Electronics and Information Technology (deitY) predicts that this program will have a massive impact on the Ministry of Communication and Information Technology. It is to ensure that Government services are available to citizens electronically. It will focus on giving high speed internet facilities to its people and formulate facilities obtainable in actual time. Digital India also aims to transform ease of doing business in the country. Indian Government is main concerning on deliver broadband facilities in every rural area, Telemedicine and M-Healthcare (mobile healthcare) services also assembling the Governance additional participative. [7]

II. VISION OF DIGITAL INDIA

The vision or idea behind Digital India is surrounding on three key components such as:

A. Digital-Infrastructure:

Digital Infrastructure as a convenience that finds to give everyone with high speed internet service, a support to vital internet individuality, mobile-phone and bank-account, admittance to common service provider data centre, sharable personal space on a public cloud and safe and secure cyberspace.

B. Governance and Facilities:

Governance need which will be obtainable in real time on online and platforms of mobile, effortlessly incorporated across department. In addition, the stipulation of cashless e-transactions (electronic transaction) will assist produce industry and Geographical Information Systems (GIS) will be integrated with the enlargement of system.

C. Empowerment of Citizens:

Empowerment of citizens particularly citizen of village's, by making them literate as digital manner. It will be done by concerted digital frameworks and by making obtainable the resources of digital in native language with a observation to making their

contribution a certainty. It will be assist plug into data that will be without stinting accessible on the cloud computing framework self-governing of an involvement.

III. KEY PILLARS OF DIGITAL INDIA

The vision of Digital India would be supported by nine key pillars that cover projects such as [8]:

A. **Broadband Highway:** (To grant high speed broadband cover main highways/roads linking approx. 2.5 lac villages, several Government departments and universities etc. So, Here provide an Integrated Information Infrastructure (3-I) with combination of State Wide Area Network (SWAN), National Knowledge Network (NKN) and National Optical Fibre Network (NOFN)).

B. **Universal Access to mobile** (To cover mobile connectivity to approx. 42,300 villages)

C. **Public Internet Access Programme (PIAP):** (To make 2.5 lac CSCs operational at level of Gram Panchayat for providing Government facilities and To exchange 1.5 lac. post offices into multiple service centres.)

D. **E-Governance:** (To use business process re-engineering to renovate Government processes and make them easy to access, automated and efficient.)

E. **E-Kranti:** (To employ technology for service delivery such as e-education, e-healthcare, technology for preparation, farmers-security, financial inclusion, justice, etc.)

F. **Information for all:** (To provide direct access to Government information and documents online and To provide two-way communication between citizens and the Government by online platforms and social media)

G. **Electronics manufacturing:** (To aim net zero imports by 2020, by several actions in areas such as taxation/incentives, economies of scale, skill development, Government procurement etc.)

H. **IT for jobs:** (To provide necessary skills, knowledge and training that enable the youth to

availability of jobs in field of Information Technology.)

I. **Electronics manufacturing:** (To focus on implementation of application within undersized timelines such as IT framework for messages, e-greetings from the Government, biometric attendance, Wi-Fi connectivity in all universities etc.)

IV. TECHNOLOGY DRIVERS

In nowadays, the only technology is the medium that enable massive transformation in any country. Off course, it is critical to select appropriate and emerging technologies that can mass reach and can be customized with unique in nature. Technologies such as cloud computing, mobility and analytics would be the most suitable in facilitate the vision and the pillars of the initiative. The technologies are detailed below.

A. **Cloud Computing:** Cloud computing allows the user to accumulate and access data irrespective of where they stored. The Government of India plans to use cloud for seamless integration between several departments and citizens. It will present a centralized data storage services which help in dissemination of information at very fast.

B. **Mobility:** Mobility enables accessibility of information goes throughout electronic devices such as smart phones, tablets, laptops, etc. It can be joined with cloud to allow sharing of data, documents or information with other users. People can correspond with the Government regardless of their physical locality.

C. **Analytics:** Analytics relies on collection of huge amounts of data and drawing out activities insights. Governments across the world are using the power of analytics to provide enhanced services to their citizens.

V. INSIGHT OF E-GOVERNANCE IN INDIA

Due to use of online transactions by citizens India is doing dramatic growth. In 2 years, the number of such e-transactions has grown by more than 200%..

The number of transactions per service category is shown in the figure below. [10]
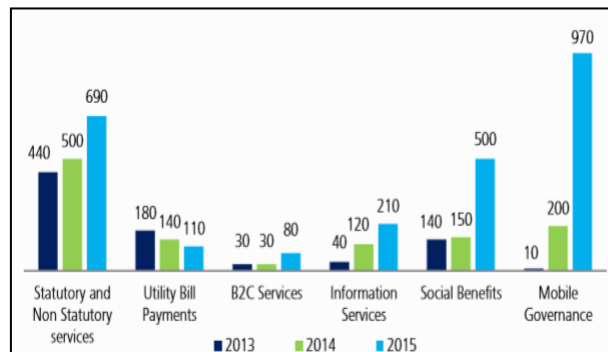

Figure 1. Numbers of E-Transactions in India (In Million) (Source: etall.gov.in)

The speedy development in e-transactions over a three year time period (2013-2015), as depicted above figure 1, prove that people are fast to adopt these technologies as and when they're made available. The responsibility of the Government is to make available the concern infrastructure and policies to enable effective and efficient digitization of the economy resulting in increase in efficacy of E-Governance. Partnerships with agencies, people and private, having expertise in making the related technological plan and model is an efficient way to execute such transform. A possible approach would be to execute systemic modification at each level in specific Government departments and integrating these to confer an integrated, macro level model.

VI. BUILDING BLOCKS OF DIGITAL INDIA

As per previous discussion about vision areas, pillars and initiatives, the technical and schematic diagram depicted below that shows how the initiatives concern in with the nine key pillars of the Digital India programme:
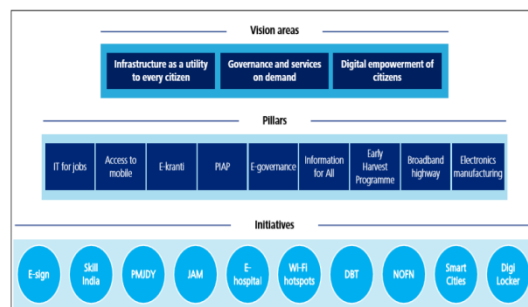
Figure 2. Building Blocks of Digital India

These initiatives are almost innovative in the approach in which they will enhance governance and ultimately carry to life the idea of comprehensive development and powerful enlargement. Most of the initiatives are going on productively. Their success in the future will depend on how the policymakers, the executive and the citizens, alike, cope with the several issues and challenges that handle themselves at various phases.

VII. KEY CHALLENGES

An initiative of this dimension has never been imagine before and apart from little accessibility of capable manpower, implementation has been a challenge. Hence, the vision cannot be realized without engage in such intimidating way. Some of the challenges are detailed below.

A. **NOFN Infrastructure Setup:** The attempt to connect approx 2.5 lac villages through an optical fibre network has seen important delays the past. Just about 1% of those villages are connected to the internet through NOFN [11].

B. **Adoption of Internet:** Rather than infrastructure installation, acceptance of the internet leftovers a concern. Internet access has remained close to 15% in India while in China it is approx. 46% [12]. People in poor areas would locate it complicated to afford internet through broadband or mobile. Low literacy level, lack of content with local relevance, lack of appropriate access devices would also hindrance to adoption.

C. **Data Speed:** Data speed is another issue where India faces a big hurdle. India is ranked 20th in mobile data speeds, with an average speed of 0.099 mbps. In evaluation, Canada, the top ranked nation, has average data speed of over 4.5 mbps30.

D. **Security:** As the cybercrime on the rise, the plan of putting information of about a billion citizens online seems like a risky move. So, good levels of security standards and protocols would require to be taken for a safe environment for the people.

E. **Coordination and Standardization:** Several Government departments such as DeitY, DoT, Law, Finance, etc. would be involved in creating systems and operational standards for a seamless integration. Such involvement would need to significant levels of coordination to ensure proper flow of information.

F. **Private Sector Participation:** In order to meet the expected timelines, participation of private sector players becomes quite crucial. Whereas, private sector players have shown limited involvement, this needs to be boosted quite rapidly.

G. **Manpower:** Skilled manpower is the biggest challenge India. Here approx. 475 million people occupied with labour work, out of that approx. 93% are involved in unorganized labour. Skilled manpower is necessary in the development and effective adoption of new technical sources. Here a necessary to create a pure system to train with skill and provide productive employment. [14]

VIII. CONCLUSION

As per the observation of the idea of Digital India, it is significant thing to endorsing comprehensive enlargement by empowerment of people. To ensure success execution of Digital India's initiatives in the Government will have to take steps across multiple functional areas such as made the regulations to smooth adoption of services. It is also necessary design appropriate strategy to skill enhancement for achieve the predefined targets. Budget constraints and security protocols are required to monitoring within a certain intervals.

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