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TOWARDS PROGRESS OF DIGITAL RURAL INDIA INITIATIVES: AN ANALYSIS

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ABSTRACT

India is a known powerhouse of software. Its share in global IT services outsourcing is 56 per cent and growing every year. But availability of electronic government services to citizens is still comparatively low. The National e-Governance Plan approved in 2006, made a steady progress but it has been slow and greater thrust was required.

In this background, Digital India was launched by the Prime Minister on 1st July, 2015 with an aim to transform India into a digitally empowered society and knowledge economy. The programme would go a long way in wiping out the digital divide besides offering a slew of digital solutions in almost all sectors including education, health, agriculture and administration. Also, it will generate huge number of IT, Telecom and Electronics jobs, both directly and indirectly.

Despite the successful implementation of many e-governance projects across the country, e-governance as a whole has not been able to make the desired impact and fulfill all its objectives. In order to transform the entire ecosystem of public services through the use of information technology, the government of India has launched the Digital India program with the vision to transform India into a digitally empowered society and knowledge economy. It has been felt that a lot more thrust is required to ensure e-governance in the country promote inclusive growth that covers electronic services, products, devices and job opportunities. Moreover, electronic manufacturing in the country needs to be strengthened.

INTRODUCTION :

Digital India is an initiation by government of India which focuses on transforming India into a digitally empowered society. Digital India has been proposed in the budget 2014 to bridge the gap between digital have and have not's. Prime Minister Narendra Modi launched 'Digital India initiative' on July1st, 2015 with a view to empower the people of the country digitally. This program is projected at Rs. 1,13,000 crores for a superior cause of making India a knowledge hub. In the inaugural ceremony of 'Digital India' week in New Delhi Modi said in presence of senior ministerial colleagues, industry chiefs and CEO's of several global companies "We have to move from E-governance to M-governance. M-governance does not mean Modi governance whereas it indicates Mobile governance. Government has incorporated a range of proposal worth over Rs.1 lakh crore like digital hacker, e-health, e-education, e-sign and national scholarship portal. Government has organized various events across 36 states and union territories covering around 600 districts all over the country. Finance Minister supported Modi's opinion saying Digital India initiative has enormous prospective to empower the country and aid economic growth by harnessing technology. Very interestingly it is seen that several people have changed their facebook profile pictures showing their assent for 'Digital India' after CEO Mark Zuckerberg and Prime Minister Narendra Modi.

'Digital India's vision rotate around three basic principles:
1. Infrastructure as a utility to every citizen
2. Governance & Services on demand
3. Digital empowerment of citizens

To fulfill this holy vision global investors like Sundar Pichai, Satya Nadella, Elon Musk have joined their hands in the Digital India initiative. Satya Nadella, CEO of Microsoft intend to become partner with India in the Digital India program with a huge contribution to set up low cost broadband technology services to 5 lakhs villages across the country.

NINE PILLARS OF DIGITAL INDIA :

Digital India stands on the foundation of nine pillars which are briefly described below along with the challenges that each of these pillars face-

1. Broadband Highways :
Under this broadband connectivity for all is planned. By December, 2016, 2.5 lakh Panchayats would be connected by broadband. Urban areas and new urban buildings would have ICT infrastructure. Networks like SWAN (State Wide Area Network), NKN (National Knowledge Network) and NOFN (National Optical Fibre Network) would be integrated under National Information Infrastructure.

However, laying optical fibre cables doesn't ensure that they will be used. Because, in India, number of wire line broadband users is very less, whereas usage of mobile broadband has exploded like anything. This increase in mobile broadband users is mainly because of the good content it provides e.g. apps like Facebook and Watsaap. Government is not very good at creating such content, so wire line broadband may not be that appealing to users. So partnership with private companies would be required for this. Without good content, broadband cable network would be like empty pipes.

2. Universal Access to Phones :
Still, there are more than 40,000 villages that do not have mobile connectivity. This initiative is to fill this gap. Laudable though, challenge is to ensure quality of service in these remotest places. Even in metro cities like Delhi and Mumbai, users face the problems of call drops and network accessibility, then we can imagine the situation in a remote village of Arunachal Pradesh. Also, with the increase in the number of mobile broadband users, present network may not be able to keep up. Digital India will need more spectrum. For this government is taking spare spectrum from Defense Ministry.

3. Public Internet Access :
Though our teledensity is quite high, not everyone India can buy a smart phone or laptop. Large number of people in rural areas do not have any access to internet. Govt plans to solve this problem by ensuring public internet access through Common Service Centres

(CSC) and Post Offices. Plan is to establish one CSC in each Gram Panchayat where all government schemes would be accessible to all.

4. E-Governance: Reforming Government through Technology:

ICT can be leveraged effectively through e-governance to bring government at the doorsteps of the citizen. Under this pillar, Govt. is laying emphasis on -

i.   online applications and tracking of their status
ii. Simplifying the forms by asking for the minimum and necessary information only making all databases and information in electronic form
iii. Use of online repositories e.g. school certificates, voter ID cards etc, so that citizens are not required to submit these documents in physical form.
iv. Automating the workflow inside government departments to increase efficiency
v.   Integrating the platforms such as - Adhaar, Payment Gateway, Mobile Platform etc
vi. Using ICT for public grievance redressal

Use of IT for governance started quite early in India, and was successful too. But most of those initiatives died once the officer behind the initiative got transferred to some other department. We'll have to see that this does not happen with Digital India initiatives. Also, most of the e-governance projects, that India needs, have been successfully piloted somewhere in the country. Challenge is to successfully replicate them all over the country.

5. E-Kranti - Electronic Delivery of Services:

E-Kranti comprises 41 large e-governance initiatives, called "mission mode projects" which include-

I.   **e-Education-** All Schools will be connected with broadband. Free wi-fi will be provided in all secondary and higher secondary schools. A programme on digital literacy to be taken up at the national level. MOOCs -Massive Online Open Courses shall be developed and leveraged for e-Education.
ii. **e-Healthcare** would cover online medical consultation, online medical records, online medicine supply, pan-India exchange for patient information.
iii. **Farmers** will get real time price information, online ordering of inputs and online loan and relief payment with mobile banking.
iv. **Security** - Mobile based emergency services and disaster related services would be provided to citizens on real time basis. This would help minimize the loss of life and property.
v.   **Technology for Justice-**to reduce delays in court cases-e-Courts, e-Police and e-Prosecution.
vi. **Technology for Cyber Security -** National Cyber Security Co-ordination Centre would be set up to ensure safe and secure cyber-space within the country.

The challenge here is the sheer scale of these projects. It is easy to demonstrate a pilot project in a block or district, but real test would be when these schemes will be made available to 1.25 billion people.

6. Information for All:

Under this pillar, Govt. plans to establish two way communication channel with the citizens in which public will have open and easy access to the information and at the same time provide feedback to the govt. Recently launched platform MyGov.in has already become a medium to exchange ideas/ suggestions with the Govt. Present government is also using social media in a big way to reach out to the citizen. Many stranded Indians in gulf countries used twitter to reach the External Affairs Minister and got help promptly.

This initiative, no doubt, will make the government more responsive and accountable. But it will succeed only if our politicians and bureaucrats show positive attitude towards criticism on online platforms and take it in a democratic way.

7. Electronics Manufacturing:

This is probably our weakest leg in Digital India programme. We import huge quantities of electronic equipments ranging from, smart phones to laptops to set top boxes. Our domestic manufacturing capacity in electronics is grossly inadequate. Some blame it on the Information Technology Agreement, to which India became a signatory in 1997, and allowed the electronic imports flood the country. Whatever be the reason, we can't make India digital with foreign equipments. For this Make in India and Digital India both have to come together. Our PM's vision is for 'Net Zero Imports' by 2020 in this segment (means, our imports become equal to our exports). This is ambitious. To ramp up local manufacturing, coordinated action on many fronts is required e.g.-

I.   Tax incentives to local manufactures
ii. Give more focus on -Set top boxes, Mobiles, Consumer & Medical Electronics, Smart Energy meters, Smart cards, micro-ATMs
iii. Incubators, clusters to promote innovation and entrepreneurships
iv. Skill development to meet human resource requirements of the industry
v.   Government procurement from local manufactures

8. IT for Jobs:

This is a project to train 1 crore students from smaller towns and villages for IT sector jobs over five years. BPOs would be set up in every northeastern state to facilitate ICT enabled growth in these states. Also Telecom Service Providers (TSPs) would train 5 lakh rural youth to cater to their own needs in those areas like to maintain mobile towers.

The challenge here is not just the numbers, but quality. Technology in this field keeps changing at a rapid pace and often there is a mismatch in the demand and supply of the trained manpower. Most firms have to invest a great deal into their own training for "fresher" recruits.

9. Early Harvest Programmes:

As the name suggests, these are the programmes which are easiest to implement. Most of these projects are already underway and some are even nearing completion. These include-

I.   Biometric attendance in Govt. organisations
ii.   Wi-Fi in all Universities
iii. Secure Email within Government
iv.   Public Wi-fi hotspots
v.   School Books to be e-Books - All books shall be converted into e-Books
vi.   SMS based weather information, disaster alerts
vii. National Portal for Lost & Found children

'DIGITAL INDIA' BENEFITS FOR FARMERS:

'Digital India' initiative would help the farmers in various ways e.g.

I.   A virtual platform of a National Agricultural Market (NAM) is launched, this will interconnect the mandis in various states electronically. This will ensure that the farmers get the maximum price for their produce as they will have access to information on the best price for their farm produce on their mobile phones
ii. *'Pradhan Mantri Fasal Bima Yojana'* launched recently, will leverage e-technology in a big way. After crop damage, farmer will send the photographs of his damaged crop through his smart phone to the authorities. Govt. will use satellite imaginary to ascertain loss. Direct Benefit Transfer (DBT) of the claims to the farmer's bank account will reduce the delays in payments and eliminate middlemen.
iii. These days, farmers rely on many informal channels for

information regarding agriculture e.g. fellow farmers, owner of the fertilizer shop, *adhatiya* etc., Information from there sources may be biassed at times. Through portals such as E-Kisan, farmers are able to get authentic information in real time.

iv. Information regarding weather can be made available to farmers in real time.

v. Farmers can interact with agri-experts on digital platforms and learn about new techniques and methods.

vi. Govt. can use e-platforms to expand its agri-extension services and implement Lab-to-Land approach.

CHALLENGES TO DIGITAL INDIA :

Digital India is achievable but it has its set of challenges. Some of these challenges are-

1. Though India achieved 'universal primary education' target in 2015, its adult population still has sizeable number of illiterate or semi literate people, especially in villages. Taking Digital India initiatives to this segment of population, that might have never touched *a* computer, would be a challenge. One solution may be to use graphical user interface (GUI) so that even an illiterate user can understand it.

2. Above problem is further accentuated by the fact that almost all the content on the internet, all apps & software is in English. In a diverse country like India that has 22 major languages, it would be a challenge to provide all e-facilities in these many Indian languages. Usually this is done by translating English content. But most of the time, this translation is done in a very shoddily in a mechanical way, making it dry and difficult to comprehend for the masses. It will have to be ensured that not only all the facilities under Digital India are available in Indian languages, but the quality of the content in our own languages is up to the mark.

3. Digital literacy especially in rural areas, is very low. Though Government has already announced a 'Digital Literacy Mission' for this, still it would pose a challenge in coming years.

4. True value of being digital means that workflow becomes automated and administrative system becomes more efficient, faster and transparent. But the challenge in this is, that the government has been working in a particular way and suddenly, they have to work in a completely different environment. Now they have to put information online, respond to grievances and criticism. This will be difficult for those officials who are not used to function in this manner. Also digitisation and automation will reduce scope for corruption and thus a section of officials may try to sabotage these initiatives as was witnessed during trial of DBT in MGREGA in Andhra Pradesh. Changing their attitude would be a tough task. A beginning can be made by explaining to them the advantages that digital will bring in running the government.

5. With increased digitisation and e-services, threat of cyber crimes and frauds would increase. So precautions on this front need to be taken from the beginning, else it may erode the public confidence in e-services. People need to be made aware of cyber threats and ways to guard against them.

6. With all this focus on digital processes and e-services, India still lacks a mandatory legal framework for e-governance. The Electronic Services Delivery Bill-2011 lapsed in the parliament and a better framed law need to be immediately enacted. Adhaar has legal backing now, but concerns over the issue of data privacy still remain.

7. Government alone, can not make Digital India a success. For this, support and cooperation of private sector will be needed at every stage. So clear principles and guidelines need to be developed for the Public- Private-Partnerships in this field. Also, projects in remote villages may not be viable for private sector, so special attention will have to be given to this.

8. Implementation of Digital India involves - Union Government, States, Union Territories and IT industry. Coordination among so many Govt. departments and private players would be a gargantuan task and would largely decide the success of this initiative.

9. There are different internet protocols in different states depending on what kind of hardware and software they use. This may cause problems in interoperability. Hence, all software protocols need to be standardised. Also, the software should be on open source basis, rather than propriety. Because, propriety solutions are more expensive and would be different to integrate across states.

10. We need IT solutions for suited to Indian needs. For this push need to be given for innovation and developing low cost technologies. Hence concept of Net Neutrality need to be nourished and supported as it helps in innovation on internet.

CONCLUSION :

In the end, we come to the big question - can technology solve the inherent problems of a society? Can inequality, cast / gender based discrimination, exploitive social and political structures all be dealt by just automation and optical fibre cables?

Probably not. But, it is for sure, that digital India can certainly play a positive role in solving all these problems and hence everything need to be done to make it successful.

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