Era of Digitalisation & Indian Economy

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Abstract: In India, expanding web diffusion, fast innovation endorsement and high trading of specialized contraptions like cell phones, tablets, and so forth, have prompted an appealing on the web client base and exceptional development of internet business. Household strategies with respect to media transmission, money related administrations and circulation and conveyance would give contributions to online business exchange related transactions. Studies demonstrate that 2.6 employments are made by web for each occupation lost for web. Impact of internet is evaluated around two components: consumption and expenditure and supply. The consumption and expenditure is the usage by individuals, companies and government. The supply side includes the industries like telecommunication, hardware manufacturers, software and services that shape the internet world. The use of internet in business showed profitability is increased by 10% on an average across countries. Internet related business contributes 3.2% towards Indian GDP. (Alpesh Shah, 2015). The trade balance component contributes maximum to this share. In order to take advantage of e-commerce business, there has to be a proper business model as well as other strategies so that the business is sustainable and provides economic growth. This paper features the idea of digitalization alongside the social, financial and environmental advantages of digitization on learning techniques and data maintenance. Also it studies the impact and incidence of steps taken by government in this direction so far.

Keywords: Digitalization, Heritage, Indian Economy, Transparency, e-governance, GDP, Network

I. METHODOLOGY

Secondary data analysis is utilized for interpreting vision and impact of digitization in India. Digital India Programme which has PAN India scope is covered under this paper. Just auxiliary information from some credible government sources and research papers of prominent scientists are utilized.

II. INTRODUCTION

The influxes of acquisition and use of ICTs (Information and Communication Technologies) have changed radically our reality by presenting particular technology–empowered administrations in each circle of our lives. There is different utilization of ICT, digitalization is one of them. The digitalization substantiate its affects on economy and society by reducing joblessness, enhancing personal satisfaction, and boosting access to learning and other open administrations. The procedure of digitization is set apart by cost adequacy to cut the cost that brought about in different learning homes identified with the generation, association and correspondence of data that makes long haul monetary development. The procedure of digitization encourages to safeguard, access, and offer a unique record to the general population worldwide that may just be accessible prior to the individuals who visit its physical area various measures are taking in the field everywhere throughout the world and in India, to ration and save the learning of the over a wide span of time for the up and coming eras. In this highly competitive world it is extensively important for an economy and society at large to be a part of Digitalization. There are studies demonstrating that organizations that are more develop in their reception of advanced registering innovations have better execution in income, benefit, and market capitalization. A significantly more extreme ramification is that whole enterprises may be upset since industry limits are getting obscured or advanced industry that are digitally active retains different ventures (Prause, 2016). India took a more extensive measurement for E-administration activities in the mid 1990s with citizen-centric services and vast sector by sector applications. Railway Computerization, Land Record Computerization, etc. are some major projects which are predominantly concentrated for the development of information systems in India. Later on, many states began e-administration ventures focused at giving electronic administrations to residents.

In spite of the fact that these e-administration ventures were subject driven, they could make not as much as the coveted effect because of their restricted highlights. The secluded and less intuitive frameworks have uncovered significant holes that were impeding the fruitful reception of e-administration along the whole range of administration. They unmistakably pointed towards the requirement for a more far reaching arrangement and usage for the framework required to be set up, interoperability issues to be tended to, and so on to set up a more associated government. Right data at the ideal time to a right person has been the point of data experts. (Ministry of Electronics & Information Technology)

A computerized retail producer paradigm has been proposed which suggests for specialization of specific sectors and talks about the trade-offs from the same as far as employment creation and fruitfulness is concerned. Further on this extent building necessity are clarified alongside the part of the administration and

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Digitization is the way toward changing over data into a computerized set up. In this configuration, data is composed into discrete units of information (called bit s) that can be independently approached (for the most part in different piece bunches called byte s). This is a data in binary format that PCs and numerous gadgets with capacity to reckon, (for example, advanced camera s and computerized listening device s) can process. Content and pictures can be digitized likewise: a scanner catches a picture (which might be a picture of content) and changes over it to a picture record, for example, a bitmap. Digitizing makes it facile to safeguard, access, and dispense data. For instance, a unique verifiable archive may just be open to individuals who visit its physical area; however in the event that the record content is digitized, it can be made accessible to individuals around the world. There is a developing pattern towards digitization of verifiably and socially huge information. (Rouse, 2007).

Digitisation is concerned with optimisation of internal processes of business however it don’t affect the business model of any economy as a whole. But with changing scenario as technology has become intrinsic part of everybody’s everyday life, customers have become more active and interact with companies through various technology means like social media. Accordingly, Digitalisation is a customer-centric approach. Uber, Olla, flipkart, various search engines like google etc. are example of various means which being a part of digitalisation provide customers with a wide base of choices and information. (Prause, 2016)

**Causes Impelling Digitalisation**

- Young generation of India are as of now completely adjusted to the computerized world and have natural expectations of always being in contact with rest of the world, current scenario, fashion trends etc.
- Industries are deploying low cost smart devices and by expanding economic availability of broadband, technology has been outreached to vast potential consumers. The huge data preparing and cloud computing apparatus it requires, is growing quickly.
- Higher level of competition in the market has urged the need for investing huge amount of capital in new digitisation technologies and capture benefits by taking early steps for same. General markets remunerate early movers with uncommon valuations.

**Implications of Digitalisation**

- Primary goal of digitization is conservation of national heritage yet additionally offers chances of recreating and dispersing the legacy. Pave the way for better understanding of past, reinforce national pride and personality and educate both the far-flung diasporas and the eras to come. National heritage covers manuscripts, early printed books, paintings, music, documents related to the freedom struggle, letters and diaries of statesmen etc.
- The Internet and the Web based advancements have acquired noteworthy changes the ways the data is created, appropriated, accessed and utilized.
- One of the critical utilization of IT is the digitization of learning i.e., to change over the printed data in the computerized shape and made accessible for use with the assistance of PC systems. This has changed the entire situation of data world.
- Digitization of government records, policy documents, announcements etc. leads to easy access of government data thereby enhancing transparency and prompting citizen to participate actively in the democratic process leading to better governance.
- Being a worldwide idea, digitization has conspicuous effect on monetary development and work of any country. (parekh, 2016)

**Prerequisites of Digitalisation**

- Guaranteeing economical access through pervasive system reach and economical information empowered gadgets/Internet designs;
- Enabling advanced digital exchanges and simplifying remittances, conceivably through new instruments, for instance digital wallets;
- Developing an administrative structure which will encourage content advancement and not obstruct the development of the business, particularly, inspecting the IT Act, the Copyright Act (to secure specialists on the web) and the e-learning directions;
- Creating an Internet administration system that empowers all partners to work successfully;
- Enabling entrepreneurial ventures through simplicity of financing, mentorship projects and building up a solid computerized work-drive;
Digital instruction and enablement of small and medium undertakings (SMEs) to push Internet utilization; and
Creation of a native dialect web to tap capability of level II/III /IV urban areas and towns. (Alpesh Shah, 2015)

III. PILLARS OF DIGITAL INDIA PROGRAMME

(Digital India: power to empower, 2017)

On the path of Advanced India Digital India is an umbrella programme that covers different Government Ministries and Departments. It intertwine together substantial presumptions and perceptions into a solitary, extensive vision so each of them can be actualized as an aspect of a bigger objective. Every individual component has its own objectives and importance, but at the same time they all together are also contributing to major objective. Implementation of Digital India is the duty of all Governments at centre as well as at state level, with general coordination being invigilated by the Department of Electronics and Information Technology (DeitY). Digital India plans to give the truly necessary push to the nine mainstays of development regions. These nine pillars are:

1. Broadband Highways – The propounded initiative discusses filling the holes of digital segregation in the country through Broadband Highways. It covers three main components which are Broadband for all – rural, Broadband for all – urban and National Information Infrastructure. Department of telecommunications is the nodal department for this undertaking. 250000 village panchayats were proposed to be covered under the National Optical Fiber Network.

2. Universal Access to Mobile Connectivity – Mobile compatibility has changed the social and fiscal life over the rural and semi-urban districts by traversing the propelled division. Disregarding the fast advancement of Mobile correspondence framework, nation Mobi-frequency in India continues falling far behind urban rates. Changing the world into an overall server farm where everyone has induction to information eager for advancement a go at associating the propelled partition, bringing unmistakable money related points of interest and engaging social focal points through improved correspondence. The plan of universal access to mobile connectivity was initiated providing mobile coverage to uncovered regions, as a step towards development of north-east regions of the country.

3. Public Internet Access Programme – Public internet access has been identified by government as one of the nine pillars of Digital India programme. With the aim of reshaping India into a digitally accredited economy, the administration intends to expand the number of towns with Common Service Centers. Additionally plans to change over 150,000 million post offices into multi-benefit hub. (jain, 2015).

4. E-Governance: Reforming Government through Technology - e-Governance Pillar: Reforming Government through Technology has the vision for mechanization of work processes inside government divisions and organizations to empower productive government procedures and furthermore to enable perceivability of these procedures to the natives. Keeping in mind the end goal to satisfy the Digital India Vision, Central/State government divisions require Business Process Redesigning utilizing IT to enhance exchanges which are most vital for evolution throughout the government and therefore should be executed by all departments as well as central/state government offices.

5. E-Kranti - Electronic Delivery of Services – Considering the basic requirement for changing e-Governance and advance versatile Governance and Good Governance in the nation, the approach and key segments of e-Kranti have been endorsed by the Union Cabinet on 25.03.2015 with the vision of "Changing e-Governance for Transforming Governance".15 central, 17 state and 12 integrated mission mode projects is covered under e-Kranti programme. They traverse e-learning, all schools to get broadband and free Wi-Fi. In addition enormous online open courses, e-medicinal services and innovation for farm management, security, budgetary incorporation, integrity, arrangement and digital security.

6. Information for All – This initiative is a move towards making all necessary information easily accessible to the citizens. It will promote two way communications between government and citizens as administration will prudently participate through social media and internet. The present BJP drove government has been broadly praised for its online networking astute and its utilization of computerized outreach apparatuses. (Pandey, 2015)

7. Electronics Manufacturing - In India, the current structure needs reinforcing keeping in mind the end goal to help electronic assembling; the objective being 'NET ZERO Imports' in this sphere in the days to come. This would be an aspiring objective which would require composed activity on many fronts like tax assessment, impetuses, economies of scale, and abolishing cost hindrances. The regions under concentration would incorporate things like FABS, Fab-less outline, Set top boxes, VSATs, Mobiles, Consumer and Medical Electronics, Smart Energy meters, Smart cards and smaller scale ATMs. At
display, there are numerous continuous projects in the space of electronic assembling which will be calibrated with measures, for example, advancement of hatcherries, groups, and concentrate on aptitude improvement alongside measures, for example, Government acquirement. ‘MAKE IN INDIA’ campaign is the biggest push in this direction. (DeitY)

8. **IT for Jobs** – Aim of this initiative is to give training to 1 Cr students from smaller towns & villages for IT sector jobs over a period of 5 years. DeitY has been chosen as the nodal department for this scheme. Further BPOs are planned to be set up in each north-eastern state to encourage ICT empowered development in these states. 3 lakh benefit conveyance specialists would be prepared as a feat of aptitude improvement to run suitable organizations conveying IT administrations. 5 lakh country workforces would be prepared by the Telecom Service Providers (TSPs) to take into account their own particular needs. Branch of Telecom (DoT) would be the nodal division for this plan. (digital india, 2015)

9. **Early Harvest Programmes** –
   - Under this programme, DeitY has developed A Mass Messaging Application which is aimed at covering elected representatives and all Government employees. 1.36 Cr mobiles and 22 Lakh emails form part of the database.
   - A Basket of government greeting which are e-Greetings templates have been made available. Crowd sourcing of e-Greetings through MyGov platform has been guaranteed.
   - Biometric attendance has been initiated which will cover all Central Govt. Offices in Delhi and as of now in use in DeitY and has also been started in the Department of Urban Development. On-boarding has likewise begun in different divisions.
   - Ministry of HRD has been given responsibility of ensuring Wi-Fi in All Universities. All universities on the National Knowledge Network (NKN) shall be covered under this scheme.
   - Secure Email would be principal mode of communication within Government
   - DeitY’s Mobile Seva Platform is prepared for enabling SMS based weather information & disaster alerts. MoES (IMD) / MHA (NDMA) would be the nodal associations for executing this plan.
   - For encouraging ongoing data assembling and sharing information on the lost and found children. Also, to keep a check on crime, National portal for lost and found children has been launched. (digital india, 2015)

**Steps taken by Government so far**

(From Ministry of Electronics & Information Technology)

Throughout the years, Central Ministries and various State Governments have undertaken a substantial number of activities for introducing an era of digitalization in governance. Perpetual endeavors have been made at different levels to enhance the conveyance of open administrations and disentangle the way toward getting to them.

E-Governance in India has consistently developed from digitization of Government Departments to activities that cocoon the better purposes of Governance. Lessons from past e-Governance activities have assumed a vital part in molding the dynamic e-Governance methodology of the nation. Due awareness has been taken of the idea that to accelerate e-Governance usage over the different arms of Government at National, State, and Local levels, a program approach should be embraced, guided by regular vision and system. This approach has the capability of empowering tremendous investment funds in costs through sharing of center and bolster framework, empowering interoperability through principles, and of displaying a consistent perspective of Government to natives.

1. On May 18, 2006 government approved National e-Governance plan. It comprised of 31 Mission Mode Projects and 8 components. These cover wide areas of agriculture, land records, health, education, passports, police, courts, municipalities, commercial taxes, treasuries etc.
2. For improving public distribution system in India, government recommended implementation of Smart ration shops. Accordingly all ration cards will be digitalized.
3. On December 8, 2016 government made following announcements for promoting digitalization:
   - On use of credit/ debit card, e-wallets or mobile wallets while paying for petrol/ diesel a discount of 0.75 percent will be rendered.
   - On buying new life insurance or while paying premium for the same through PSUs website, 10 percent and 8 percent discount will be rendered respectively.
   - No service tax will be charged on transactions up to Rs. 2000 done from credit/debit card.
   - RuPay kisan cards will be issued to 4.32 crore kisan credit card holders by government through NABARD
• 2 POS machines (swipe machines) will be provided to 1 lakh villages each with population below 10000. These POS machines are planned to be given free of cost supported through financial inclusion fund.
• Passengers will get Rs. 10 lakh accidental insurance on online booking of railway tickets.
• Discount of 5 percent on paying through digital mode for railway catering, accommodation, retiring room etc.
• PSBs are exhorted that vendors ought not to be required to pay more than Rs 100 as month to month rental for PoS terminals/Micro ATMs/portable PoS. (Govt’s digital push: 11 incentives to promote cashless transactions, 2016)

4. For advancement of computerized installments at check posts and toll plaza, the Ministry of Road transport and Highways had exhorted car makers to ensure that every new vehicle have an Electronics Product Code Global Incorporated (EPCG)- consistent Radio-Frequency Identification (RFID) office so it would be simple for individuals to make installments carefully at such places without any need of waiting in long lines. (S, 2016)

5. It has been advised to all public sector units and government agencies an Exclusive Use of digital payments, Internet banking, Unified Payment Interface (UPI) and Aadhar-enabled payments for all the payments to employees.

6. In instances of exchanges with private contractual workers or organizations, it has been made compulsory for government and its offices to give digital payments as a choice rather than payments just through check or demand draft. NPCI authorities said all PSUs now have an UPI application that individuals can make utilization of to advance computerized exchanges. The RBI has additionally declared measures to support payments through e-wallets or prepaid payment instruments.

IV. IMPACT OF DIGITALISATION

• Effect of digitalization on a nation can be evaluated on the premise of its effect on the legislature, on the economy and the general public. We have seen a noteworthy change in each area with the development of digitalization. The digitalization has made new openings for work, have prompted development in exceptionally every part and furthermore prompted the development of the economy i.e. have helped in the GDP development of the nation. The legislature has accentuated on the digitalization as it brings straightforwardness, better control and better openings for work. It also improves their standard of living.
• Digitalization is fabricating a vigorous, secure and solid foundation leading to advancement of skills and innovation in economy.
• It will help in strengthening the foundation of foreign exchange reserves by increasing the flow of foreign direct investment in country which will further leads to a more stable economy.
• As per the World Bank report, a 10% expansion in portable infiltration expands the per capita GDP by 0.81% and a similar increment in broadband diffusion will raise the per capita GDP by 1.38%. Digital India venture is relied upon to build the broadband diffusion crosswise over India by half (which is as of now at 7%) and portable infiltration in rural India by 30% (which is right now 45%) in next 2 years, the parallel increment in GDP could be 9% i.e. around $180 billion. (sharma & agarwal, 2015)

V. CONCLUSION
A digitally updated and connected population can change the entire economy. The mechanization of the financial parts will prompt better execution and development of the segments, which thereof affect the development rate of the economy. Digitalization will prompt cost funds, expanded yield, better business, improved efficiency and education, and so on. In the agrarian division and in Industrial segment, digitalization will help in improvement of the considerable number of procedures, be it, buying, selling, stock control, exchange relations, business, innovation and improvement, and so forth. Computerization of Service Sector will help in development of the division by expanding the straightforwardness in access to and rendering of the administrations. More extensive client reach and customization of administrations as per client's necessities additionally support the interest for administrations. A carefully enabled economy grows significantly, successfully and productively because of better use of its capital and in addition HR. What's more, India being a nation with such gigantic labor assets, if used legitimately, can accomplish phenomenal development rate and put the nation in top position alongside the created economies.

VI. REFERENCES

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