Digital Economy In India For Inclusive Growth: Opportunities And Challenges For Development

A. Pappu Rajan
Associate Professor, Dept of Management Studies
St. Joseph's Institute of Management, St. Joseph's College (Autonomous)
Affiliated to Bharathidasan University, Tiruchirappalli, Tamil Nadu, India

Abstract- *Technology today is evolving and enabling faster changes with progresses it requires learning, unlearning and relearning of new technologies. All over the world the need to align with the new technology like Computing Power, Quantum computing, Smarter Devices, Artificial Intelligence and Machine Learning, Digital Trust,3D Printing, Genomics, Edge and cloud Computing, Blockchain and Bitcoin, Virtual Reality and Augmented Reality Blockchain, Internet of Things,5G and Cyber Security. The inclusive growth of the Indian Economy is concentrating on the development of technology in all fields. The transformation of manual to digital is a core aim of the country, which will help the country to empowerment of society and intellectual capital of knowledge creation. Upcoming technology like quantum supremacy, emotional AI, 5G, flying car, autonomous car,3D Printing, drone flight, IoTs, Machine Learning and augmented reality will develop in the world economy and dominate the business industry in the next 20 years and beyond. The transformation of India is to a digitally empowered society and a knowledge economy in Digital India. The technology changes have more profound impacts on the humanity development. This is great success because of digital India, skill India, make in India, Start-up India and smart cities. These programs have been helped not only economic it has more inclusive growth in all area and benefits will get by every Indian. Developing digital infrastructure, improving digital delivery of services, giving digital literacy are main objective of the digital India, which are aiming at enhancing internet connectivity and improving the online infrastructure for power to empower. In this paper deals drivers in business, digital applications in India and their challenges and the new direction in digital India with inclusive growth especially in areas of electronic services, products, manufacturing and job opportunity.*

Keywords- Digital India, Digital Trust, Digital Economy, Inclusive Growth, IT Development

I. INTRODUCTION

Digital transformation is the process of using digital technologies to creating new or modify existing system in business processes reengineering. The digital transformation in the country is little different from small business unit. Information Technology is always creating new opportunities to build business and economy. The fast growing or changing latest technology such as E-Commerce to M-Commerce, Data Analytics to Machine Learning, Automation to Artificial Intelligence, Industry 4.0 are changing the whole business scenario. The vision of the digital India is digital infrastructure as core utility to every citizen, Governance and Service on Demand and Digital Empowered of Citizens. All developed Nations are concentrating the Technology implementation in the business. The common service centre 2.0 scheme to expand the common service centres to all Gram Panchayats across the India and a beneficiary to other government schemes including Make in India, Startup India, Bharatmalaand BharatNet. Among the top 13 ministries with the highest allocations, in 2022-23 budget, the highest percentage increase in allocation is observed in the Ministry of Communications (93%), followed by the Ministry of Road Transport and Highways (52%), and the Ministry of Jal Shakti (25%). Digital India Mission is mainly focused on three areas are providing digital infrastructure as a source of utility to every citizen, Governance and services on demand and to look after the digital empowerment of every citizen. Thee pillars of the digital India are Broadband Highways, Universal Access to Mobile and Public Internet Access, E-Governance, Reforming government through technology, Electronic delivery of Services, Information for all, manufacturing and IT for Jobs. The objective of the Digital India is to build participative, transparent and responsive governance to reach out the ordinary citizens in support of service of electronically and promote digital literacy in India.

II. TECHNOLOGY DRIVERS – ECONOMIC GROWTH

Broadband Highways, Broadband for All, Universal Access to Mobile Connectivity are helping to increase the electronic transactions related to e-governance because Government Provides high-speed internet in all gram panchayats. Forming and reforming e-Governance through Technology is process of transformation for connect across various government domain therefore overcome the limited

accessibility of internet access and upskilling the skills for employees in the field of digital technology that will resolve challenges of the lack of skilled manpower in the field of digital technology in different domain and industry in the government and non-government sector. In all round technology development help to a smart way to drive the nation towards future**.** Under sunrise opportunities: Semiconductor and its eco-system Space Economy, Artificial intelligence, Geospatial systems and drones,Green Energy, and Clean Mobility Systems, Genomics and Pharmaceuticals, have immense potential to assist sustainable development at scale and modernize the country. For Research and Development in these sunrise opportunities, in addition to efforts of collaboration among academia, industry and public institutions, government contribution will be provided.

Travel and Tourism Industry: The Government has undertaken several new initiatives such as e-ticketing for monuments, e-visa, multi-lingual helpline to digital travel in India. India has great an opportunity in the area because the global digital travel sales will help them to making India in the third largest market by travel and tourism industry in the Asia Pacific region. The Government must give attention to high speed broad band internet connection, mobile digital payment and secure regulatory and policy frame work in place to develop this field because India already has more attractive places to attract regular tourist in overseas level.

Artificial Intelligence: India needs to concentrate the following technology drivers' adoption to develop the Digital India which will help to improve the GDP rate in the Nations directly or indirectly. Learning Systems can be classified into two types such as supervised and unsupervised. Artificial Intelligence systems is one the new learning systems used to understand or think like human. India needs to use the speech, voice and image recognition for care delivery for rehabilitation, elderly care, measuring and delivering medication. The Government needs to build AI research lab for AI genomics, drug discovery, oncology and stem cell therapy. India has very strong potential to expertise in Bionics and Nano technology for precision medicine but the Government needs to allocate budget to develop the research lab. Digital adoption will give result in strong economic growth in India. This growth would also be contributed by digital communication services, which will potentially have an economic value of $50 billion to $55 billion in 2025. [1]. Increasing usage of mHealth apps facilitating better health awareness, remote diagnosis and treatment. More than 2billion Indians will buy a smartphone and their accessories by 2030.There will be a 4.5X internet penetration, with 90% of the internet consumption through mobile devices. The National e-Governance Plan should initiate of the Government of India to make all government services provide to the ordinary citizens of India through internet.

E- Commerce and M Commerce: E-commerce is play most important vital role in India because of the Government already initiated the cashless transaction such as such as Immediate Payment Service, Real Time Gross Settlement and National Electronic Funds Transfer. So B2C e-commerce accounted for 18.8% of the US$629 billion overall retail sales in 2017 and Current e-commerce penetration at 28%; expected to increase at CAGR of 23% till 2021.The Nation should concentrate Mobile Financial Services which require implementation of mobile technology to all business. Internet penetrationto increase from 30% in 2016 to 59% in 2021. Increase usage of smart phones Smartphone users in India are expected to increase from 260 million in 2016 to around 450 million by 2021 Shoppers Rise in number of online Number of online shoppers would increase from current 15% of the online population to 50% of the online population by 2026 Change in payment landscape Total Digital Payment Market in India. The total market size of the retail sector was valued at $795 billion in 2017, which is forecasted to reach $1.2 trillion by 2024. Therefore, the Indian business must involve the mobile money transfers, mobile banking, Contactless payments and in-app payments, Location-based services and mobile marketing. The Government should concentrate the technology like augmented reality and chatbots with messenger apps to ensure security and enhance the options for customer registration for mobile banking service in multiple languages for smartphone users.

Health Care Systems: Health care sector is most important developing area in all over the world. New technology development is need to identifying and curing the disease. Data and knowledge sharing and regular monitoring of a patient through technologies is very essential therefore Government is need attention in the Internet of Things (IoT). For this connection adoption of Internet of Medical Things (IoMT) with sensors and wearable devices are require to develop the country in the health care sector. Electronic Health Records and exchange of health information electronically are help the doctors and the systems to extend higher quality and safer care of the people. India is emerging as a strong market for wearables, with approximately 2million units sold in 2017, expected to reach 129 million units in 2030. Recently introduced 3D printing technology is already being adopted in the Indian healthcare sector providing 3D printed models and prosthetics to hospitals. The pandemic gave another view in health care systems because more unsettle issues and serious mental health problem in people therefore quality counselling and care services needed to improving the nodal centre for counselling.

Technology based Education and learning System: High level of digital illiteracy is the biggest challenge in the success of digital India programme**.** Even though more technology-oriented learning systems introduced in India not perfect monitoring systems is employed for E-Learning Systems Therefore Learning programmes can improve only E-Learning and Mobile Learning that will improve the quality and affordability at all learning levels. All accreditation systems must give more weightage to IT enabled learning in all level of education. The Massive Open online course must have introduced in all university in their part of the curriculum. The Government should introduce more courses on cybersecurity to improve their skills also they may have collaboration with international certification bodies to enhance the online learning. The Indian top education institute must have collaboration with their University to enrich the knowledge sharing for this development the Government must allocate budget for developing IT infrastructure in the educational institutes. Whenever India create a knowledge capital in education system by the way knowledge creation, capture and sharing which will improve not only Indian education systems also it will attract foreign students come to joint in Indian university that will improve the economy.

The university will build the hub-spoke model for networking and collaborating with each of the in the learning communities. This new initiative will develop by cutting edge ICT expertise that will provide access to the students, faculty and learners across the country for world class quality education Challenges in IT Trust: In general, the daily internet speed and WiFi accessibility are very low comparing other developing countries. The small and medium scale industry and their IT investment on IT Infrastructure development is major challenges in term of economic feasibility and modern new technology development. Online shopping consumer much worry about security only as more products and services are online digitally delivered therefore India must give confident about data privacy and security which will improve the online business and uphold consumer trust in the digital ecosystem therefore cybersecurity experts require to check and monitor the digital crime. Promoting security by design approach for communication devices. The Government must give more awareness program to know how to secure their data in online processing. With new technology, digitisation and new approaches are needed to compete globally. But as all the surveys and indices show, India is lagging behind in ICT adoption. Moreover, campaigns such as Digital India, Start-up India, Skill India, etc display the focus of government to capitalize on the wave of digitization.

In digital India, there are more than 2.5 lakhs Gram Panchayats so giving internet connectivity is not easy job therefore planning and implementation of internet connection with broad band fiber network needed to more attention and ensure each activity done perfectly. The trouble shooting and recurring repairing process are great challenges. Encouraging and enhancing digital transaction need more hotspots to reach global level. The allocating budget is not sufficient enough to build and maintain digital infrastructure therefore bring collaboration with other countries to build digital infrastructure without affecting rural marketing in Indian business. The involvement of private participation in digital India project is poor because of various reason in particular long and complex regulatory processes. Public Private Partnership model should evaluate and explore possibility of implementing proper way for developing digital infrastructure. Inclusive growth in rural and urban is different in nature in term of access at affordable cost, infrastructure, education people on the use of technology.

The economic and societal changes can be made by only revolutionary role of technology development. The technology changes have more profound impacts on the humanity development. This is great success because of digital India, skill India, make in India, Start-up India and smart cities. These programs have been helped not only economic it has more inclusive growth in all area and benefits will get by every Indian.

Opportunity in Digital Economy: Digital economy will boost creation of startups that will lead new initiation of investment in small- and large-scale business in entrepreneurial innovation. Rising adoption of digital technologies and the IT industry will develop the society in many ways that includes developing infrastructure and India's financial systems in particularly attract private investments, both domestic and foreign.More e-commerce and m-commerce business development, promoting business investment in digital infrastructure, improving digital skills and training, encouraging healthy competition in innovation and growth, adoption in new technology in MSME. Indian IT industry would be developed and it will help to improve the digital skills across key digital technologies such as machine learning, cloud computing, IoTs and AI. An opportunity is in the digitization for growth, productivity and innovation, digitization of globalization and digitization of Work

III. CONCLUSION

India has the second highest number of internet users after china but digital buyer penetration in India is only 43.6 percent compare to china and Brazil. The major problem is

Secure E-Commerce ecosystems is needing more attention than only users or common people may be using technology in the business environment. The limited growth of technological institution, the Government is forced to use primitive methods of technology whose productivity is very low. Therefore, there is need for effective participation of all people in digital economy with higher commitment which will have help the growth of technology in India.

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