KAMARAJ COLLEGE

Accredited with A+ Grade by NAAC

இந்து நாடார் சங்கங்களால் 1966-ல் தொடங்கப்பட்ட கல்லூரி

(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)

THOOTHUKUDI - 628 003

Two-Day International Conference on

DIGITAL ECONOMY OF INDIA – A PATHWAY TO DEVELOPMENT [DEIAPD – 2023] – [FULL PROCEEDINGS]

27th & 28th July, 2023

Indian Council of Social Science Research

Azadi Ka Amrit Mahotsav

G20 2023 INDIA

Organized by

**POST GRADUATE AND RESEARCH DEPARTMENT OF ECONOMICS
KAMARAJ COLLEGE, THOOTHUKUDI – 628 003
TAMIL NADU.**

Sponsored by

**INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH [ICSSR]
NEW DELHI**

Chief Editor

Dr. V. Thangamayan

Book Title:

TWO-DAY INTERNATIONAL CONFERENCE ON DIGITAL ECONOMY OF INDIA – A PATHWAY TO DEVELOPMENT (DEIAPD - 2023) - (FULL PROCEEDINGS)

Chief Editor: Dr.V.Thangamayan

Edition: I

ISBN: 978-81-965238-5-5

Month & Year: August, 2023

Copyright ©:   SK Research Group of Companies – SKRGC Publication

Book Size: A4

Date: 27th & 28th July 2023

DIGITAL INDIA: OPPORTUNITIES, CHALLENGES AND IMPACT ON DIFFERENT SECTORS OF ECONOMY

Mrs. C. SRI PRIYA
Assistant Professor,
Department of Economics,
Sri GVG Visalakshi College for Women (Autonomous),
Udumalpet, Tamil Nadu, India.
Affiliated to Bharathiar University.

Dr. K. KALIAMMAL
Associate Professor,
Department of Economics,
Sri GVG Visalakshi College for Women (Autonomous),
Udumalpet, Tamil Nadu, India.
Affiliated to Bharathiar University.

ABSTRACT

Digital India programme is one of them which was launched on 1st July, 2015 by our honourable Prime Minister Sh. Narender Modi ji. The digital India programme is a flagship programme of India with a vision to transform India into digitally empowered society and knowledge economy so that habit can be created among the people of society to make deals through digital resources. The main programme was launched with the aiming to ensure that 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. To increase the digital connectivity and make governance more transparent, Digital India initiative has launched some amazing project. Prime minister launched the Digital Media Week on Wednesday to push the use of technology to connect and empower the people in areas relating to health, education, labour and employment, commerce etc. Under this programme, the Government plans to introduce Broadband Highway, Universal Access to Mobile Connectivity, Public Internet Access Programme, IT for jobs and much more for the benefits of the people of country. According to the report published by ASSOCHAM and DELOITEE on Digital India, November, 2016, around 950million peoples are still not able to get internet facility. The present study is undertaken with aiming to understand the concept, visions, pillars and initiatives of Digital India and also highlighted the positive impact on the different sectors (agriculture, industry and service sector) of economy due to these initiatives of the Government. There is various researcher concluded that the Digital India is a great plan to develop India for knowledge in every section of economy but its improper implementation due to inherent shortcoming and challenges can lead to its failure. Though, Digital India programme is facing number of challenges yet if it is properly implemented can be proved the best future of every citizen of country. Thus, there is need to pay more attention on rural area and also need to work together to make the programme successful.

KEYWORDS: Digital India, Challenges, Employment, Benefits to Different Segments of Economy.

INTRODUCTION

The present era is the technological era and hence become the integral part of our daily walk of life. Thus, today we can't imagine our life without use of technology. Digital India is a programme to transform India into a digitally empowered society and knowledge economy. It is a dream project of the Indian Government to remodel India into a knowledge economy and digitally empowered society to ensure that government services are made available to every citizen of economy electronically by improving online infrastructure and by increasing internet connectivity or by making the country digitally empowered in the field of technology. It consists of three core components as follows:

(i) The creation of digital infrastructure.
(ii) Delivering better services digitally to user.
(iii) Digital literacy which is required to make aware about the digital knowledge. Digital India is like an umbrella programme which covers various departments of economy with the initiative that the government services and information should be available anywhere, anytime on any device that are user friendly and secured with Digital India project. This initiative is marked change in country and enhances the growth in every sphere of economy. All over the world many investors and companies are taking interest in Digital India Project-21st Century of India. Simultaneously the initiative is designed to create jobs and enhance skill development which will ultimately lead to increase in GDP and revenues from tax. Concisely, it is one of the biggest steps by government of India to motivate the citizen of the country and digitally connect them with economy aiming to share the knowledge with rest of world.

LITERATURE REVIEW

Numerous researchers from various disciplines due to great significance and influence on economy have undertaken the research studied on Digital India initiative and have given different views and some the important views on digitalization studies are;

Sundar Pichai (CEO of GOOGLE), Satya Nadella (CEO of MICROSOFT), Elon Musk (CEO of SPACE X): They researched about Digital India and its preparedness to create jobs opportunities in the information sector. They concluded that creating new jobs should be continued with shifting more workers into high productivity jobs in order to provide long term push to the technological sector in India. Satya Nadella who is Microsoft CEO intends to become India's partner in Digital India program. He said that his company will set up low-cost broadband technology services to 5lakhs villages across the country.

1. Prof. Singh: He began with the basic overview of what Digital India entails and led a discussion of conceptual structure of the program and examined the impact of "Digital India" initiative on the technological sector of India. He concluded that this initiative has to be supplemented with amendments in labor laws of India to make it a successful campaign.

2. Arvind Gupta: He intends to say that Digital India movement will play an important role in effective delivery of services, monitoring performance, managing projects and improving governance. An Integrated Office of Innovation & Technology to achieve the same, for problem solving, sharing applications and knowledge management will 27 be the key to rapid results, given that most departments work on their own silos. Tracking and managing the projects assumes significance because India has been busy spending money in buying technology that we have not used effectively or in some cases not even reached implementation stage. Sharing learning's and best practices across departments needs to be driven by this Office of Technology.

3. Gupta and Arora (2015): He studied the impact of digital India project on India's rural sector. The study found that many schemes have been launched in digital India to boost agriculture sector and entrepreneurship development in rural areas. Digital India programme has also set the stage for empowerment of rural Indian women.

4. Rani (2016): She concluded in her study that the digital India project provides a huge opportunity to use the latest technology to redefine India the paradigms of service industry. She also pointed out that many projects may require some transformational process, reengineering, refinements to achieve the desired service level objectives.

5. Midha (2016): He concluded that the digital India is a great plan to develop India for knowledge future but its improper implementation due to inaccessibility and inflexibility to requisite can lead to its failure. Though digital India programme is facing number of challenges yet if properly implemented it can make the best future of every citizen. So, we Indians should work together to shape the knowledge economy.

6. Newaseetal (2016): The author focuses on the increasing importance of ICT among rural village communities and it played a dual role. On the one hand it helps to bring new innovative products or services which may improve the standard of living of rural poor and on the other hand it also able to create better income generating opportunities. The combined effect also helps the government to increase the revenue. It is a fact that it may help the individuals to grow in all aspect. So, it is important to generate ICT infrastructure adequately so that the process of serving consumers with the help of various financial products.

7. Deshpande etal (2015): The authors describe the role of ICT in developing rural villages. Economic growth of a country is entirely depending on the growth of urban as well as rural areas. Higher concentration of growth in urban areas will not able to achieve the target growth. As a result of which the country may move towards backward directions. If we look at the Indian economy, a large portion of population still residing in rural areas but adequate measures have not been taken to improve the socio-economic conditions of the rural people. Still lots of improvement are required in various areas. The new age technology adaptation may help to bring much needed change which will help the people to connect with the rest world. ICT is one such scale which aims to improve the agricultural productivity, can attract people in allied sectors as well as non-farm sectors. There is a potential to attract huge investment in these sectors if and only if the technological improvement may be incorporated adequately.

8. Ahamadetal. (2015): The paper described the present condition of rural economy and its subsequent impact on rural employment opportunities. Indian economy is basically agrarian economy and most of the people are engaged in agricultural activities. But with changing economic environment the demand for new age agricultural productive activities are in high demand. But slow implementation of the process is hampering the growth in terms of production and employment opportunities. This has also led to growing nature of rural to urban labour migration. This movement of workforce leads Digital India: Opportunities, Challenges and Impact on Different Sectors of Economy Challenges and Opportunities to shortages of manpower in the rural areas. There is an urgent need to upgrade the facilities in the agricultural sector. Application of ICT should be considered more relevant as it may lead to create better income generating opportunities. The growth in employment generation ultimately leads to push other sectors as well. The overall impact should be seen from a long term perspective.

OBJECTIVE OF THE STUDY
1. To understand the obstacles/challenge in the path of digitalization and the economic growth.
2. To understand the requirement of digital literacy and impact on rural areas.
3. To find out the opportunities and challenges confronted in implementation of Digital India programme.
4. To identify how the technologies and connectivity together can make an impact on all aspects of governance and improve the quality of life of citizens.
5. To understand the pillars and initiatives of Digital India.

RESEARCH METHODOLOGY
Being descriptive research, it is based on secondary data of National & International Journals, articles, reports, books, newspapers and magazines covering wide collection of academic literature on 'Digital India'. Available secondary data was extensively used for the study to show the result with more accuracy.

LIMITATION OF STUDY
Limitation in present study is common because it is based on secondary data. Some of the limitations in present study are as follows:
- The study is completely based on secondary data. No primary data is being used for the completion of study.
- Secondary data may be lacking of accuracy.
- Time restraint remained the major limitation of study.
- Biasness cannot be eliminated at all.

PROJECT: DIGITAL INDIA

The project Digital India has undertaken several tasks. Some of these tasks are discussed below:

- BBNL (Bharat Broadband Network limited), a body of Indian Government is a custodian of Digital India project. The BBNL has undertaken the project of National Optical Fiber Project. BBNL has given the major task of connecting 250,000 villages across India through GPON (Gigabit Passive Optical Network) which is an Internet Protocol based optical network. It has high bandwidth and efficiency. GPON is mostly used to connect multiple premises.
- The Government of India is devising to constitute 28,000 vacancies for BPO (Business Process Outsourcing) in different states of India.
- e Government of India is also devising to set up at most one Common Service Centre (CSC) in each state's Gram Panchayat. I
- n 2016 Indian Union Budget declared the evolution of 11 new technologies.
- One of the latest technologies is the Data Analytics which will be very useful in long terms to take hold of the tax defaulters.
- With the use of latest technologies, the Indian Government has declared to connect 550 markets of farmers to connect them and increase their benefits.
- Due to the high number of illiteracy rate and language as the barrier the Government of India, induced the famous electronic mail (e-mail) service providers: Rediff and Gmail to give the e-mail addresses to the people residing in different states of India in their regional languages.
- Digi Locker: It is used for storing one's important personal documents like degree certificate, housing documents, passport, PAN card, and other personal documents digitally.
- My Gov.in: This is a platform where people can discuss and share their opinions regarding policies and governance.
- SBM Mobile App: It is a mobile application termed as Swachh Bharat Mission. This app is used to bring about the intentions of Swachh Bharat Abhiyaan.
- Attendence.gov.in: The service of this website is used to keep the daily track of the government employee's attendance.
- E-sign framework: This service grants the citizens of India to sign any important document digitally through online. This process can be done only after Adhaar authentication to prevent the misuse of any important information.
- The Online Registration System (ORS): Under this e-Hospital application has been introduced. This application provides important services such as online registration, payment of fees and appointment, online diagnostic reports, enquiring availability of blood online etc.
- National Scholarships Portal: It is a one stop solution for end-to-end scholarship process right from submission of student application, verification, sanction and disbursal to end beneficiary for all the scholarships provided by the Government of India.
- DeitY: It has undertaken an initiative namely Digitize India Platform (DIP) for large scale digitization of records in the country that would facilitate efficient delivery of services to the citizens.

PILLARS OF DIGITAL INDIA

The Government of India aspires to target the nine pillars of the Digital India Campaign and they are:

1. Broadband Highways: This service facilitates broadband connection for urban as well as for rural areas across the country.
2. Universal Access to Mobile Connectivity: This service promises increase in the network penetration and coverage of maximum states across India.
3. Public Internet Access Program: Each and every state including the rural areas of each state should have obstacle free access to the Internet. All Government services should be reached to all the citizens throughout the nation.
4. e-Governance (Reforming Government through Technology): This service entails the different Government transactions using IT (Information Technology). All information

and information in the databases are to be stored in electronic databases rather than storing it manually.

5. e-Kranti (delivery of electronic services): It includes: e-education (i.e., e-schools, ecolleges, e-distance learning), e-health care, e-farming, technology for justice, technology for security.

6. Information for all: It enables two-way communications between the Government and the citizens of nation, clear and easily accessible information from the online repositories and delivering online messages to people during any special programs.

7. Electronics manufacturing: Low-cost manufacturing of electronic devices such as smart phones, tablets, personal computer, laptops, etc. so that the poor people can also take benefits from it.

8. IT for Jobs: Providing training for IT sector jobs to people and students from small towns and villages and also training to the Service Delivery Agents to run feasible businesses that deliver various IT services.

9. Early harvest programs: To develop standardized design for Government e-mail template, to provide secure transfer of e-mails within different Government.

OPPORTUNITIES OF DIGITAL INDIA

The Digital India initiative will be creating approximately $1 trillion business opportunities related to communications, IT and IT-enabled services, telecom and manufacturing of electronics. Digital India program brings or opens up a wide range of opportunities for technological companies such as broadband infrastructure building; generate identity solutions, system of payment, online delivery system etc. Digital India programme provides business opportunities initially in the following sectors:

Electronic Manufacturing: It is providing skill development opportunities for private sector through telecom and electronics and investment in infrastructure of testing laboratories under the required standard.

Information and Communication Technology: It is required for IT trainer to train people in villages and small town, training for service delivery agent and jobs creation for IT experts, software developer and network experts. National e-governance department: With its establishment, requirement of senior consultant and IT consultant generated.

Healthcare: Telemedicine and remote health plan will create huge opportunity for universal accessibility to quality healthcare.

Cyber security: Cyber security is important area of focus where abundant opportunities are available. It is necessary that all type and size of organizations should invest significantly in securing their products and services from fraud or any unethical activities.

Telecom: Provide training to rural workforce on telecom and telecom related services. Infrastructure: To establish broadband and integrate the network and cloud infrastructure for better connectivity creates many opportunities for networking experts and related organizations.

Agriculture: Agriculture sector in India contributes 16% in India GDP while almost 51% in employment. It will help our farmers to know-how in various agriculture activities like crop choice, seed variety weather information, plant protection and market rate information. The opportunity will increase if government set a framework for private sector to compete and offer best services to farmer. Set up of virtual market, crop insurance against destruction, soil health card scheme etc.

Economy: Digital economy has great power to change the lives of millions of Indian people. It is a tool which could provide the opportunity for country to expand its role and connect them with rest of world enhance their knowledge.

Marketing: Numerous opportunities related to the marketing such as Digital process of advertisement, e-business, online shopping etc.

Finance: Finding new way from online banking to digital wallet, crowd funding, low-cost commercial transaction, fund transfer etc.

CHALLENGES/OBSTACLES FOR DIGITAL INDIA PROGRAM

The Digital India program is a very large-scale project of the Indian government. Thus, Indian government facing many challenges for completes the project. The major challenges are as follows:

1. Lack of co-ordination among various departments: As we know it is very large project that consist of many departments. Thus, initiative and strong support of departments is very important for properly and timely completion of the projects.

2. Implementation Cost is very high: A very huge amount is required to implement the Digital India plan successfully.

3. Infrastructure: Robust and large data centre (used to store large data of entire country) are other supportive infrastructure require for National Optic Fibre Network (NOFN) project. It is planned to build for high-speed broadband highway. Thus, infrastructure requirements and their unavailability also hamper the reaching of these basic facilities to the people as India has very low internet speed.

4. Excess time: The project like NOFN has been delayed several times and taken almost two years so; it has also delayed other related projects. The project will be successful when it completed on time.

5. Contribution of Private Players: Many regulations as well as very long and delayed projects are inhibiting the entry of private organization in Digital India programme. Private organization will play a necessary role in its success.

6. Resistance to change: The resistance to change people show during emergence of new technology.

7. Lack of digital illiteracy: Lack of knowledge about its use and benefits.

8. Lack of digital literacy: The basic hindrance is the lack of literacy and literacy is not just to be able to write one's name and do the signature but to have an understanding of the changes going in the technology, society and the country for their own betterment.

9. Building trust among the people for change: It is very difficult to persuade or build the trust among the people of country because they do not want to adopt the advance technology.

10. Slow speed of internet: According to Akamai's third quarter, 2016 report on internet speed, India is at the 105thposition in the world in average internet speed and it is the lowest in entire Asia Pacific region. This lowest internet speed cannot facilitate online delivery of various services.

DIGITAL INDIA: IMPACT ON AGRICULTURE

About 70% poor people of Indian population are living in rural areas and their occupational framework is dominated by the agriculture sector. The occupational framework of our country is mainly dominated by agricultural sector. Since long time, India has been facing major challenges in agriculture and Government of India has come up with many services for the development of the farmers. Around 94% of the total farmers in the country depend upon their fellow farmers as the favored source of information, whereas 10% on agricultural retailers, 4% depend upon television and radio and only 3% depend upon the agricultural extension officers. Due to the illiteracy the farmers in the rural areas are not able to operate the electronic devices. Apart from the illiteracy, there are other main challenges in India that affect the agricultural sector. These challenges are as follows:

o Poor agricultural infrastructure and support facilities
o Lack of common platforms for farmers.
o Poor use of ICT by farmers for agriculture.
o Inadequate awareness about applicable government schemes.

In order, to overcome the above challenges faced by the Indian farmers, the Government of India has introduced the concept of Digital India to help the farmers to sell their crops at better prices with the use of internet facility through which they will come to know about the new and better farming techniques, better marketing information, different government policies, etc. It is estimated that by the year 2022 the income of the farmers will

be doubled due to the execution of Digital India campaign. Impact of digitization on Indian economy in terms of employment, contribution to GDP in comparisons with other countries:
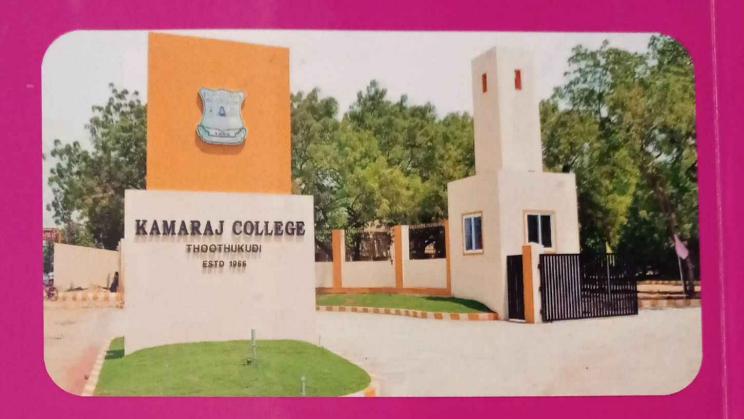
Countries	GVA (%)	Employment (%)
India	53.2	28.6
China	49.7	42.4
Mexico	60.4	61.2
Brazil	72	68.9
UK	79.9	80
US	79.3	80

CONCLUSION:

The Digital India initiative is the beginning of a digital revolution, once properly implemented; it will create numerous new opportunities for the citizens and also help to reduce the gap between the rural and urban sectors of the nation. A digitally connected India can help in improving social and economic condition of people of country through development of non-agricultural economic activities apart from providing access to education, health and financial services. However, it should be remembered that ICT alone cannot directly lead to overall development of the nation. The overall growth and development can be achieved only through supporting and enhancing elements such as literacy, basic infrastructure, overall business environment, regulatory environment, etc. In February 2016, former President Pranab Mukherjee declared Kerala as the first digital state of India owing to its achievement of high e-literacy and mobile penetration. It was also the first state to complete the National Optical Fibre Network (NOFN) project, granting high-speed Internet access to all its gram panchayats beside this India's first digital village is Akodara which is located in Gujrat State is the perfect example of what a digital village look like. Undoubtly, Government is taking all the required steps to make the plan successful by removing the limitations and barriers but still there is a long way to go.

REFERENCES

1. Areport on 'Power to Empower' by the Department of Electronics and Information Technology (DietY) Ministry of Communication and Information Technology/GOI
2. DashoraJyoti (2017): "Digital India: Limitations and Opportunities", IJARIIE, Vol. 3(3)
3. Dua Seema (2017): "Digital India: Opportunities and Challenges", International Journal of Science, Technology and Mgt., Vol. 6(3) pp. 61-67.
4. Gulati Mehak (2016): "Digital India: Challenges and Opportunities", International Journal of Mgt. Information, Vol. 4(10), pp 1592-1603.
5. Goswami, H. (2016): "Opportunities and Challenges of Digital India Programme", International Education and Research Journal 2(11), pp. 78-79.
6. Gupta Neeru and Arora Kirandeep (2015): "Digital India: A Roadmap for the development of Rural India". International Journal of Business Management, Volume (2)2, pp. 1333-1342
7. Midha Rahul (2016): "Digital India: Barriers and Remedies", International conference on science, Technology and Engineering.
8. Patel Ashok, ThakrenSheetal, ParnelVivek(2016): "Digital India: Challenges faced by IT Sector", International Journal of Advanced Reserched in Computer and Communication Engineering, Vol. 5(3),pp 1083-1085.
9. Sharma Jyoti (2016): "Digital India and impact on society", International Journal of Research in Humanities of Social Science, Vol. 4(4) pp. 64-70.
10. PriyadarshaniPadhi (2017): "Digital India: Issues and Challenges", International Journal of Research in IT and Management, Vol. 7(5), pp. 44-49.
11. www.Digital India.com
12. www.digital india.gov.in.
13. https://digitizeindia.gov.in
14. www.financialexpress.com
15. http://www.economywatch.com
16. http://articles.economictimes.indiatimes.com
17. https://blog.mygov.in/digital-india
18. Economic survey 2017

CHIEF EDITOR

Dr.V.THANGAMAYAN is working as an Assistant Professor in PG & Research Department of Economics, Kamaraj College, Thoothukudi. He obtained his Post Graduate Degree from School of Economics, Madurai Kamaraj University in 2010. He was awarded Ph.D by Madurai Kamaraj University in 2017. He has published in two Indian Patent and he has published 23 research papers in various reputed Journals like Scopus and Web of Science and his special areas of Economics, Human Resource Development and Development Economics. He has organized two national seminars.