

Digitalization and Its Impact on Indian Economy

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Abstract

Digital India is the outcome of many innovations and technological advancements. Digital India aims at providing e-solutions through e-Governance to everything. It is a flagship program of Government of India which aims to provide connection between all government run institutes and people. Its main motive is to ensure that all the work is done electronically and we go completely paperless in the coming years. It is a dream project of the Indian Government to remodel India into a knowledgeable economy and digitally empowered society, with good governance for citizens by bringing synchronization and co-ordination in public accountability, digitally connecting and delivering the government programs and services to mobilize the capability of information technology across government departments. The process of digitization is marked by cost effectiveness to cut the cost that incurred in various knowledge practices related to the production, organization and communication of information that makes long-term economic growth. The process of digitization facilitates to preserve, access, and share an original document to the people worldwide that may only be available earlier to those who visit its physical location. A number of measures are taking in the field all over the world and in India, to conserve and preserve the knowledge of the past and present for the upcoming generations. Today, every nation wants to be fully digitalized and this programme strives to provide equal benefit to the user and service provider. Hence, an attempt has been made in this paper to understand "Digitalization and Its impact on Indian Economy" with the help of secondary data.

Key words: *Digitalization, e-solutions, e-governance, Empowered, Communication, Knowledge, Economic growth.*

1. Introduction

Digital India aims at providing e-solutions through e-Governance to everything you can think of. It is a flagship program of Government of India which aims to provide connection between all government run institutes and people. Its main motive is to ensure that all the work is done electronically and we go completely paperless in the coming years. The GOI has set a deadline of 2019 for completion of this mammoth task. Digital India was formally launched by the Honourable Prime Minister of India Mr. Narendra Damodardas Modi on 1st of July, 2015. All the stalwarts including the likes of Mr. Mukesh Ambani, Mr. Ratan Tata, Mr. Azim Premji, Mr. KM Birla committed a total of 4.5 lakh crore towards digitalising India. Huge job opportunities are to be

created in the IT sector with Tata group already announcing 60,000 jobs. Also, corruption, which has been one of India’s major problems, is set to take a back seat with high transparency due to this program.

With Digital India, have the facility of Digital Locker, where we can save all your documents and it can be accessed through any place via internet. So, in short, it avoids difficult task and saves our precious time. It can be solved through e-signature. As the name suggests, we can digitally sign your document through Aadhaar e-KYC service. Now these solutions are just about the problems discussed above. There are many more things such as broadband highways which will include laying down of optical fibre network in all the 2.5 lakh gram panchayats of this country and enabling them to connect to each and every part of the world with high speed internet, mobile phones to everybody which aims at connecting all the 44,000 remaining villages to mobile connection by 2018, public internet access program to provide common service centre in 1.5 lakh villages, e-Governance which aims at reforming government through technology, e-Kranti which provides with electronic delivery of services, information for all through data available on social media and site like mygov.in, electronics for manufacturing such as mobiles and set top boxes, IT training for 1 crore people from villages and towns and, at last, early harvest program which aims at biometric attendance system at all central government offices.

According to a global study by Mckinsey and Facebook- ‘Offline and Falling Behind: Barriers to Internet Adoption’, almost 1 billion people in India are without an internet connection which comprises of 25% of the similar world population. Also, 26% of Indian population or almost 30 crore people are illiterate, that too when the condition to be counted as a literate is so lenient. India has some of the cheapest mobile internet plans; but this fact goes for a toss when it comes to country’s average income of just INR 7378/month. The troubles are further manifested when we take into account the poor condition of telecom network infrastructure in India. But I am hopeful, and so is everybody I suppose, because, “Hope is a good thing, maybe the best of things and no good thing ever dies” (<https://ecoworldnmims.wordpress.com/2015>)

2. Review of the literature

A number of research papers and articles provide a detailed insight about the role of digital India and the implications of this project in India. *Review of the existing literature are as follows:-*

Name & Year	Articles	Findings
Jain, P.M (2006)	E-payments and e-banking opined that e- payments will be able to	Taking fullest advantage of technology, quick payments and remittances will

	check black—An Analysis of Growth Pattern of Cashless Transaction System.	ensure optimal use of available funds for banks, financial institutions, business houses and common citizen of India. He also pointed out the need for e-payments and modes of e-payments and communication networks.
Srinivas, N. (2006)	An analysis of the defaults in credit card payments, has tried to analyse the socio-economic profile of the defaulters of credit cards, to identify the set of factors which contributed to such defaults and suggest relevant measures to minimize the default cases	Analysis of reasons indicated that economic hardship is the major reason identified by majority of the sample units follows by rigid payment structure and loss of job/business. The main suggestion is that the banks concerned should redesign the payment structure of credit card defaulters in a flexible and affordable installment.
Alvares, Clifford (2009)	The problem regarding fake currency in India.	It is said that the country's battle against fake currency is not getting easier and many fakes go undetected. It is also stated that counterfeiters hitherto had restricted printing facilities which made it easier to discover fakes.
Gupta and Arora (2015)	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.
Rani (2016)	The opportunity of digital India to redefine India the paradigms of service industry. service industry	Concluded that the digital India has a huge opportunity to use the latest technology to redefine India the paradigms of service industry. It also pointed out that many projects may require some transformational process,

		reengineering, refinements to achieve the desired service level objectives.
Midha (2016)	The digital India for knowledge future and its challenges	Concluded that 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.

3. Problems

The current debate among investors and economists is about the extent of slowdown in economic growth and the timing as to when a cyclical recovery is likely to take hold. However, beyond this cyclical story, there are emerging positives that can have an impact on the long-term growth story. Indeed, some of these positives can be a multiplying force that will have far-reaching implications.

4. Objectives of the study

To study the concept of digital India programme.

To find the impact of digitalization on Indian economy.

5. Needs for the study

Digital India programme is the beginning of digital revolution. It is a big initiative to empower people of the country. Main benefits of this programme are-

1. It will help in decreasing documentation and reducing paper work.
2. It will help in getting things done easily. We can save time and the pain of standing in long queues for getting our documents would be reduced.
3. Digital India mission is away for cashless transactions.
4. It can help small businesses. People can use online tools to expand their business.
5. It can play a key role in GDP growth. According to analyst the digital India could boost GDP up to \$1 trillion by 2025. According to World Bank report a 10% increase in mobile and

broadband penetration increases per capita GDP by 0.81% and 1.31% respectively in developing countries.

6. Research Methodology

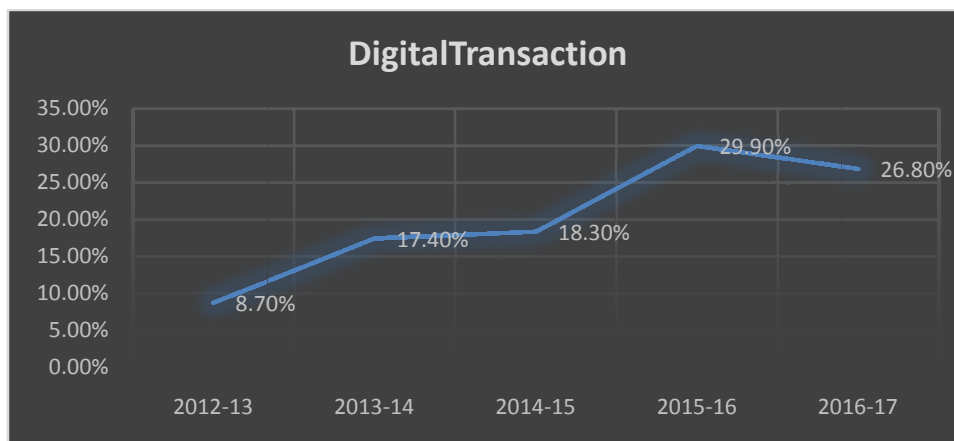
The secondary data has been collected. For this purpose, various magazines and journals have been used as it is a conceptual paper. Thus, the focus is to know more about “Digitalization and its impact on Indian economy” via other parameters. Therefore, qualitative and quantitative data have been used.

7. Data Analysis

7.1 Digital Transaction

Year	2012-13	2013-14	2014-15	2015-16	2016-17
D. Tran	8.70%	17.40%	18.30%	29.90%	26.80%

Sources: RBI



Digital Transaction was increased 8.7% in 2012-13, 17.4% in 2013-14, 18.3% in 2014-15, 29.9% in 2015-16 after that it little bit decreased to 26.8% in 2016-17. #According to *the EconomicTimes*, the RBI data shows that UPI alone has raised transactions by up to 40% month-on-month after it saw nearly 145.5 million transactions in December as compared to 104.8 million done in November2017.

IMPS (Immediate Payment Service) also grew by 10 percent to see nearly 98 million transactions happen as compared to 9.5 million in November said the report.

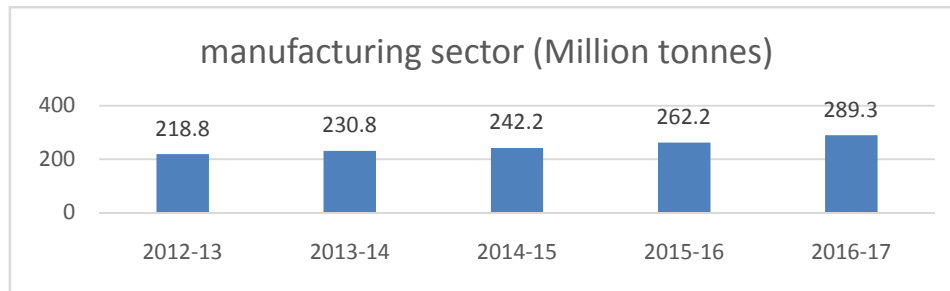
The RBI report says that UPI transactions were only 2 million in December 2016 and by December 2017 that number had risen to 145.5 million. E-wallets like Paytm, PhonePe, Google's Tez and the BHIM app announced by Modi have played a big hand in shaping the economy from a cash-strapped one to progressively pushing it towards a digital one.

Economic Times, Published Date: Jan 10, 2018 08:45 AM | Updated Date: Jan 10, 2018 08:45 AM

7.2 Manufacturing Sector

2012-13	2013-14	2014-15	2015-16	2016-17
218.8	230.8	242.2	262.2	289.3

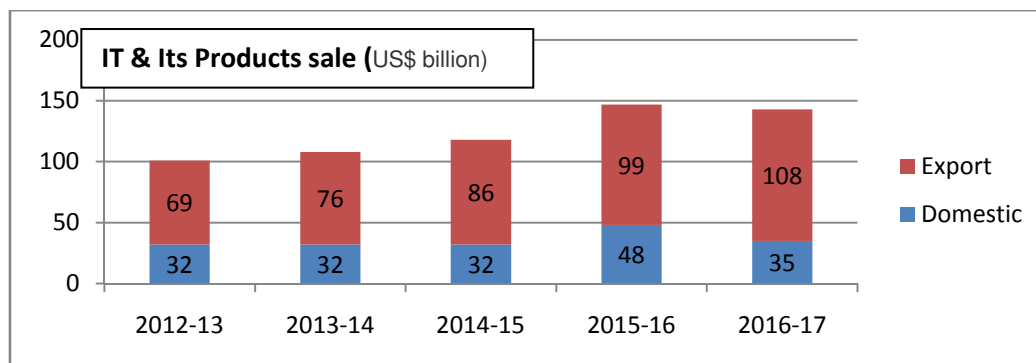
Source: MOSPI



- Manufacturing sector produces 218.8 Million tonnes in 2012-13, 230.8 Million tonnes in 2013-14, 242.2 Million tonnes in 2014-15, 262.2 Million tonnes in 2015-16 and increased to 289.3 Million tonnes in 2016-17.
- Manufacturing sector grew at a CAGR of 5.75 per cent between 2012-13 and 2016-17.

7.3 IT & ITes Sector

Year	2012-13	2013-14	2014-15	2015-16	2016-17
Domestic	32	32	32	48	35
Export	69	76	86	99	108



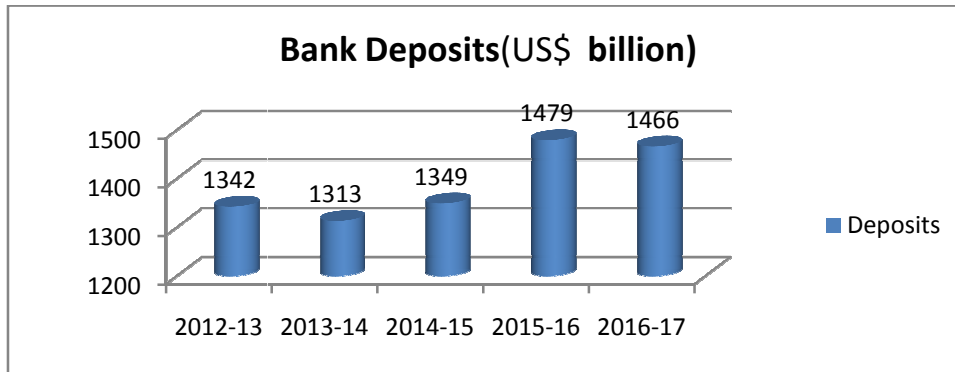
Sources: NASSCOM

- The domestic revenue of IT sector was 32 us\$ billion in 2012-13, 2013-14, 2014-15 and 48 us\$ billion in 2015-16, and it decrease to 35 us\$ billion in 2016-17.
- The Export revenue of IT sector was 69 us\$ billion in 2012-13, 76 us\$ billion in 2013-14, 86 us\$ billion in 2014-15, 99 us\$ billion in 2015-16 and it increase to 108 us\$ billion in 2016-17.
- IT sector's Export grew at a CAGR of 9.3 per cent between 2012-13 and 2016-17.
- The contribution of the IT sector to India's GDP stood at 7.7 per cent in 2016-17.

7.4 Banking Sector

2012-13	2013-14	2014-15	2015-16	2016-17
1342	1313	1349	1479	1466

Sources: RBI

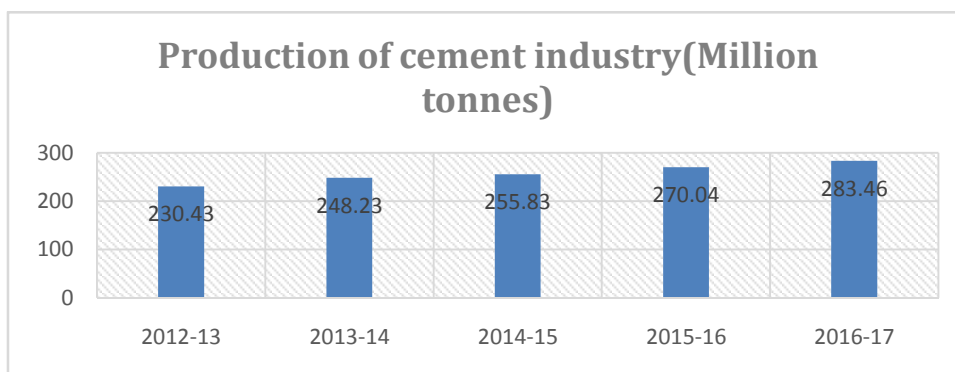


- Bank deposits was 1342US\$ billion in 2012-13, 1313 US\$ billion in 2013-14, 1344 US\$ billion in 2014-15, 1479 US\$ billion in 2015-16 and reached to 1466 US\$ billion in 2016-17.
- During 2012-13 to 2016-17 deposits grew at a CAGR of 1.5 percent.
- Strong growth in savings amid rising disposable income levels are the major factors influencing deposit growth. Access to banking system has also improved over the years due to persistent government efforts to promote banking-technology.

7.5 Cement Industry

2012-13	2013-14	2014-15	2015-16	2016-17
230.43	248.23	255.83	270.04	283.46

Source: DIPP data, Crisil

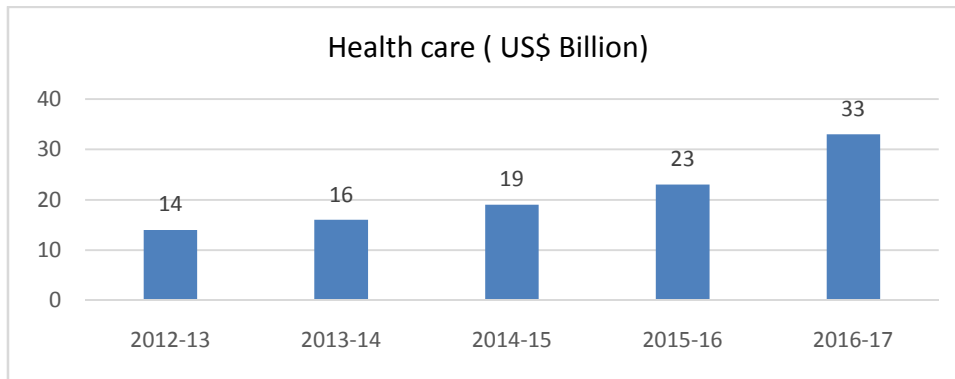


- Cement sector produces 230.43 Million tonnes in 2012-13, 248.23 Million tonnes in 2013-14, 255.83 Million tonnes in 2014-15, 270.04 Million tonnes in 2015-16 and increased to 283.46 Million tonnes in 2016-17.
- It grew at 4.23 per cent between 2012-13 and 2016-17

7.6 Indian Pharmaceutical Industry

Year	2012-13	2013-14	2014-15	2015-16	2016-17
Production (US\$ Billion)	14	16	19	23	33

Sources: BMI

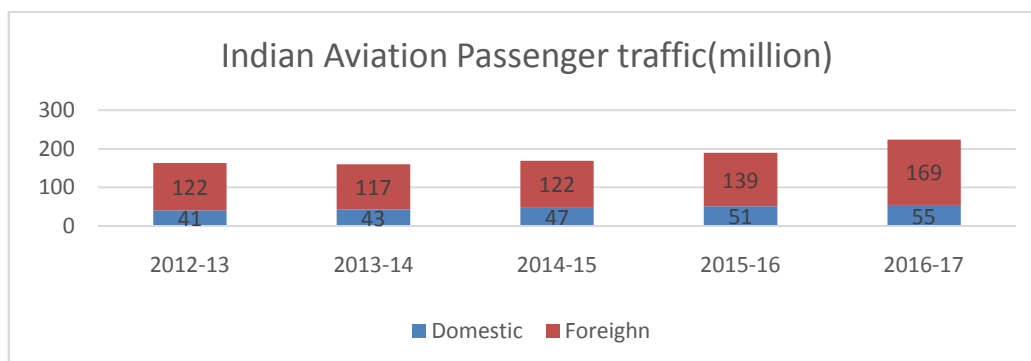


- Pharmaceuticals sector was produced 14 US\$ billion in 2012-13, 16 US\$ billion in 2013-14, 19 US\$ billion in 2014-15, 23 US\$ billion in 2015-16 and significantly increased to 33 US \$billion in 2016-17.
- It grew at a CAGR of 18.71 per cent between 2012-13 and 2016-17

7.7 Indian aviation industry

Year	2012-13	2013-14	2014-15	2015-16	2016-17
Domestic	41	43	47	51	55
Foreign	122	117	122	139	169

Source: Airports Authority of India



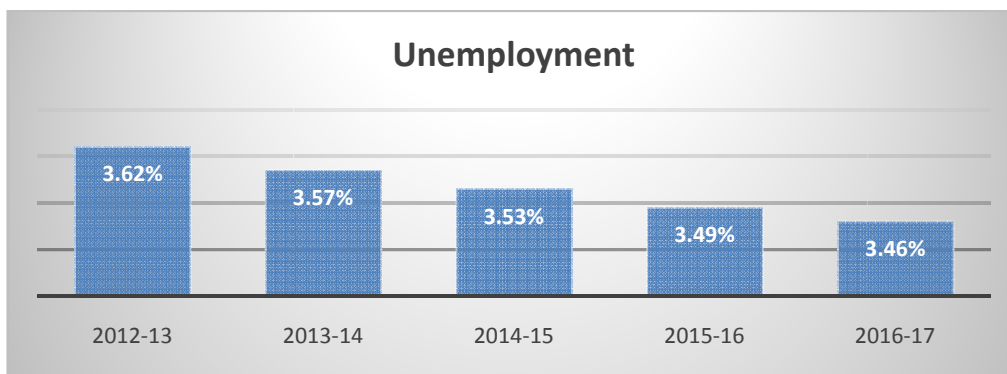
- Aviation sector performed 41 Million of Domestic passenger traffic and 122 Million Foreign passenger traffic in 2012-13, 43 Million of Domestic passenger traffic and 117 Million Foreign passenger traffic in 2013-14, 47 Million of Domestic passenger traffic and 122 Million Foreign passenger traffic in 2014-15, 51 Million of Domestic passenger traffic and 139 Million Foreign passenger traffic in 2015-16, and it increased to 55 Million of Domestic passenger traffic and 169 Million Foreign passenger traffic

- It grew at a CAGR of 6.73 per cent in Domestic and 6.05 percent in foreign passenger traffic between 2012-13 and 2016-17.

7.8 Unemployment

Year	2012-13	2013-14	2014-15	2015-16	2016-17
Unempl	3.62%	3.57%	3.53%	3.49%	3.46%

Sources: TRADINGECONOMICS.COM INTERNATIONAL LABOUR ORGANISATION(IOL)

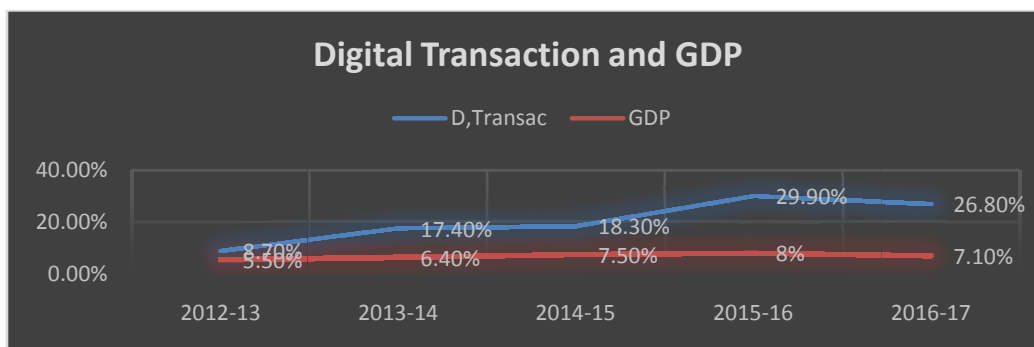


Unemployment Rate in India decreased to 3.46 percent in 2016-17 from 3.62 percent in 2012-13. Unemployment Rate in India averaged 4.08 percent from 1983-84 until 2016-17, reaching an all-time high of 8.30 percent in 1983 and a record low of 3.46 percent in 2016-17.

7.9. Digital Transaction and GDP

Year	2012-13	2013-14	2014-15	2015-16	2016-17
D,Transac	8.70%	17.40%	18.30%	29.90%	26.80%
GDP	5.50%	6.40%	7.50%	8%	7.10%

Sources: world Bank,RBI



India's gross domestic product (GDP) will grow by 5.5% in 201-13, 6.4% in 2013-14, 7.5% in 2014-15, and it increased to 8% in 2015-16 after that it slow down to 7.1% in 2016-17. The Central Statistical Office (CSO) said on January 5, confirming that the hasty implementation of the Goods and Services Tax (GST) has had a toll on economic growth.

GDP growth picked up to 6.3% in the July-September quarter after slowing to a three-year low of 5.7% in the first quarter, signaling that the economic recovery had gathered momentum. That gave rise to hope that economic growth for the full year will average at above 7%.

8. Impact of digitalization on Indian Economy

India's economy has witnessed a significant economic growth in the recent past by growing 7.3 per cent in 2015 as against 6.9 per cent in 2014. The steps taken by the government in recent times have shown positive results as India's gross domestic product (GDP) by the increase of Digital Transaction of 8.7% in 2012-13, 17.4% in 2013-14, 18.3% in 2014-15, 29.9% in 2015-16 after that it decreased a little bit to 26.8% in 2016-17. The RBI report says that UPI transactions were only 2 million in December 2016 and by December 2017 that number had risen to 145.5 million. This clearly shows that the Digital India initiative introduced by Indian government has contributed a lot to boost the economy of the country. *According to The World Bank report a 10% increase in mobile and broadband penetration increases per capita GDP by 0.81% and 1.31% respectively in developing countries.*

In the next 5 years, India will emerge to be a leader in using IT in the sectors like health, defence, education, manufacturing, aviation, cement industry, agriculture and banking. Also the service sectors will be digitally empowered. In the field of education, it also assures broadband connectivity in all Panchayats, schools, libraries and other public places.

9. Challenges

- Making Digital India scheme known and creating an awareness among common masses about its benefits is also a great challenge.
- A key component under this vision is high speed of internet as a core utility to facilitate online delivery of various service. India has low internet speed. According to third quarter 2016 Akamai report on internet speed. India is at the 105th position in the world in average internet speed. This rank is the lowest in entire Asia Pacific Region.
- The private participation in government projects in India is poor because of long and complex regulatory processes.
- India has 1600 languages and dialects. Non availability of digital services in local languages is a great barrier in digital literacy.
- Fear of cybercrime and breach of privacy has been deterrent in adoption of digital technologies. Most of the technology including cyber security tools are imported. We do not have requisite skills to inspect these for hidden malwares.

10. Conclusion

The adoption of one type of Digital Transaction may leads another type of negative effect on economy in the short run. The impact of adopting Digital Transaction on economic growth can only be significantly observed in the long run. Hence, any policy that promotes Digital Transaction will not affect the economy immediately.

11. Recommendation

Digital India campaign can't be successful on its own. Policy changes are needed to make digital India a reality. Few of the suggestions are –

- Digital literacy is first step in empowering citizens. People should know how to secure their online data.
- To make this programme successful, a massive awareness programme has to be conducted.
- Private sector should be encouraged for development of last mile infrastructure in rural and remote areas. To encourage private sector, there must be favorable taxation policies, quicker clearance of projects.
- For successful implementation, there must be amendments in various legislations that have for long hindered the growth of technology in India.

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