

Role of Technology and Its Impact on the Economy of India: Review Through Various Perspectives

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ABSTRACT

We must ensure that "Technology is accessible, affordable and adding values". Technology can change people's lives and providing them access to regional, national and global markets thus creating more and more jobs and make our country more competitive. Information and communication technology has a direct or indirect impact on the economy of India. ICT give direct jobs to employees; contribute to GDP, emerging new services and new industries, workforce transform and new innovations in business. This paper begins with the uses of technology and its impact on the economic growth. Next the paper covers how digitization helps to enhance the economy. At the middle of the paper, the focus is on mobile involvement on the economy, e-business and at the end, it is described how demonetization and the cashless India will make better the economy to a greater extent. This paper ends with why technology has not been properly implemented, what are the limitations and ends with conclusion and references.

Keywords: *Global market, GDP, Digitization, Mobile computing, E-Business, Demonetization, Cashless India.*

"We want to have one mission and Target: Take the nation forward – Digitally and economically".

Shri Narendra Modi.

I. INTRODUCTION

India is a land escalating with youth and life. It is the 11th largest economy in the world by nominal GDP (Gross Domestic Product) and 4th in terms of PPP (Purchasing Power Parity). The relationship between economy and technology has been observed and noticed from last many years. Our prime minister always has the vision, to make India, **The Digital India**, where access to information has no barriers and this can only be achieved *with the technology*. He created a wave for digitization and if will be implemented properly, would definitely bring real and tangible benefits in the economic structure of India and hence the overall financial and welfare of India. With the technology, it will be easy to access any kind of the resources and will improve the economic, social and environmental sustainability of the lives of the India.

II. TECHNOLOGY AND ITS ROLE

Technology can be defined as ideas or knowledge that helps us to produce the output from the inputs. Technology can be in different forms and shapes. We may consider it as invention of mobile phones, mobile watches, LEDs, Tablets, digital machines and many more. In terms of Governance and technology, Our Prime Minister said that "E- Governance is an essential part of our dream of Digital India, the more technology we infuse in governance; the better it is for India. India is making very significant forward steps economically and is ready to become an economic superpower by 2020. With more foreign companies entering the country and more Indian companies becoming MNC's, we can expect India to have one of the fastest economic growth rate countries in the world. Currently its GDP is growing at the rate of an average of 7.5%.

A particular industry that has been influential in the growth of the Indian economy is the IT sector. The design, development, implementation or management of information systems is referred to as information technology. It describes the production, storage, manipulation and dissemination of information. IT industries account for 6% of the GDP of India and provide employment directly or indirectly for over 2.3 million people. India produces nearly 200,000 technically and socially adept engineers every year. Below is the diagram that compares the Growth forecast among U.S, Europe, china and India.

	Revised	Earlier
Global Growth	3.6%	3.5%
U.S.	2.2%	2.1%
Europe	2.1%	1.9%
China	6.8%	6.7%
India*	6.7%	7.2%

*India GDP growth at market prices
Source: World Economic Outlook, IMF

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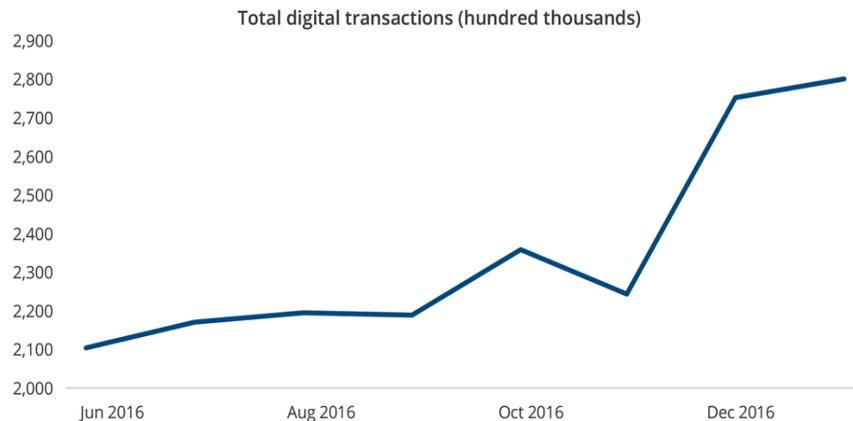
III. DIGITIZATION AND ITS IMPACT ON ECONOMY OF INDIA:

Digitization provides us easy access to information resources. Digitization makes the invisible to be visible. A number of users can access the same document at the same time without any issues. The basic idea of digitization is to make full use of ICT facilities for accessing worldwide resources and beneficial for society. As going digital is the need of the hour and to remain environment healthy and safe.

Various factors related to acceptance and manipulation of digital technology, such as pricing, reliability, speed, and ease of use of digitization, which in turn **effecting and reducing unemployment, improving quality of life, and access to public services.**

In the current scenario of the economy, the use of digital technologies is served as a means of boosting economic activities. **Adoption of digital technologies through connected services and devices has been increasing the economic growth and facilitate job creation.** The diagram shows the rise in digitization in the economy from June 2016 to Dec 2016.

Figure 2. A rise in digitization in the economy



Note: These transactions include real-time gross settlement (customer transactions), retail electronics clearing, cards (credit and debit at ATMs and point of sale), prepaid payment instruments, and mobile banking.

Source: Reserve Bank of India.

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Developed economies enjoy higher economic growth benefits from digitization, such as growth and productivity, but the emerging economies have less gain in terms of jobs. The main reason for the differing effects of digitization is the economic structures of developed and emerging economies. These divisions are discussed below:

- i) **Constrained economies** with a digitization score below 25, have barely begun to develop affordable Internet connections. Internet services remain expensive and limited in reach.
- ii) **Emerging economies** with a digitization score between 25 and 29.9, have achieved significant progress in providing affordable and widespread access.
- iii) **Transitional economies** with a digitization score between 30 and 39.9 provide citizens with ubiquitous, affordable, and reasonably reliable services, and usage is expanding at a relatively rapid pace.
- iv) **Advanced economies** with a score of 40 and higher are in the most mature stage.

IV. MOBILE TECHNOLOGY AND ITS IMPACT ON THE ECONOMY:

Mobile technology offers broad help on various forms of social and economic development. Mobile phone has been used to assist people to communicate with one another, access market information, sell products across geographic areas, reach new consumers, enter mobile payment systems, reduce fraud and crime, and empowers women. Wireless communications broaden access to information, improve capital access, overcome geographic limitations, and expand market access. The Self-Employed Women's Association (Sewa) in India consists of 1.1 million workers who pool their resources to improve their marketing. Those participating say they have been able to market fruits and vegetables over wider areas, and thereby generating higher incomes.

"I see Technology as a means to empower and as a tool that bridges the distance between hope and opportunity".

Shri Narendra Modi

The India-based Hand in Hand Partnership (HIHP) helps women to use mobile devices to launch businesses in the technology area. It provides mentorship, training, credit, and technical support. The Farmers helpful network (FHN) gives agricultural producers access to the latest research through their mobile phones. Farmers can ask questions of experts concerning crop rotation, artificial insemination, and crop insurance. This helps them to improve their agricultural production and marketing, and increase their overall income.

Access to mobile technology is also important for females because there are 300 million fewer women globally than men who own mobile devices. **Mobile payment systems facilitate by providing a way to reduce the cost of financial transactions and thereby help entrepreneurs.** If people can transfer funds quickly and efficiently, it becomes easier for small and medium-sized businesses to sell their products and easily grow their business. This improves the efficiency of the marketplace and hence removes barriers to growth.

In short, mobile technology offers extensive help for the social and economic development. With mobile phones and tablets proliferating at a significant rate, these communications tools enable women and other individuals to access a broader range of investors, suppliers, and customers.

Demonetization and its Impact on Indian Economy: A view of Cashless India

Demonetization has been one of the most interesting and trending words in India. The meaning of **Demon in Demonetization** is "an evil spirit or devil or a person act as mentor in hell". The Digital India programme is a flagship programme of the Government of India with an aim to transform India into a digitally empowered society and knowledge economy. **"Faceless, Paperless, Cashless" is one of professed role of Digital India**".

Demonetization also pushed millions of new users onto the country's digital economy grid. India is currently in the middle of its journey to modernize the way things are paid for. New bank accounts are being opened at a high rate; e-payment services are at a very rapid growth, cash-on-delivery in e-commerce has worn-out and digitally-focused sectors like the online business have started booming.

"Even the vegetable vendors on the streets have started using Paytm accounts and they have a machine outside their shop where someone can scan the bar code and make the payment," as explained by Nangia.

Prasad said that, "This is revolutionary, and survival of the fittest." "A lot more retail outlets are accepting e-wallets, including laundry provider and *dabbawala*," said Modi Ji. Demonetization initiative has been a boon for India's e-payment providers. Paytm reported on over 14 million new accounts in November alone. . "From the day of Prime Minister Narendra Modi's demonetization announcement, there has been a spike in both app downloads & merchant registrations. This spike is now coming from all cities, big and small, pan-India, consisting of small vegetable vendors, Kirana shopkeepers, street vendors, rickshaw drivers, taxi's etc. The lack of cash in the economy has also brought some very exciting and innovative solutions. The farmers' markets began experimenting with their own electronic payment system where customers with Aadhar-linked bank accounts could buy vegetables via debit cards.

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“These changes indicate a more inclusive society in the future,” Saxena said. He said that India can improve and achieve heights in its digital economy, with, more technologically advanced digital payment systems, increased merchant acceptance, improvements in UPI, which allows monetary transfers between any two bank accounts via a smartphone, as well as a reduction in cash-based transactions.

“The Prime Minister's move to encourage digital payments will offer a strong support to the country in terms of digital payment solutions,” added Deepak Abbot, the senior vice president of Paytm.

Problems can be faced in the diffusion of the technology are:

- **Illiteracy problem:** There is a need to improve the literacy rate. Due to this factor people are less aware of technology.
- **Resources are misallocated:** Allocation of resources should be increased which increases the productivity of the resources and hence the high income and saving capacity of the nation.
- **Lack of capital:** In underdeveloped countries due to the lack of capital because of low per capita income, they cannot afford machinery and new technology to improve their business or expand it.
- **Lack of Efficient Administration** and technical training can create the problem of less use of technology and new machines.
- **Services and Training centre:** Training centre can help to promote the economy to equip the labour with training and technical skills
- **Useful labour force:** Skilled labour can use the advanced technology. To improve the production and profit margin of the industry that can help the economy.
- **Removal of tax:** To encourage business savings, tax concessions should be allowed to those who save higher ratios of their profits and invest for import of technology.
- **Efficient capital market:** If we have an efficient market i.e. banks and financial institutions then people would be induced towards savings and use for import of technology.
- **Market problems:** Due to limited markets and slow turn over use of modern technology is not affordable.

V. CONCLUSION

Emerging digitization and start-Up India and the ways in which institutions are becoming digital are causing various effects on economy, society and academics as well. These rapid radical changes make the information collection, presentation and distribution more rapid, open, and global access to the information. Various studies show that mobile subscriptions' contribute to India's GDP per capita growth and now it is **11.4% (2010-2012), 4.9% (2012-2015) and 2.1% (2015-2020)**. Mobile devices contribute to economic growth due to their increased use, which has risen continuously. After demonetization, the Indian economy is projected to grow 6.75-7.5 per cent in 2017-18, the Survey said. So, Technology gears up the economy of India and improve the social and environmental sustainability of the lives of the India with the help of Mobiles contribution, digitization, demonetization, cashless and Start-up India and by the 2050, India will be the ranked second, ahead of US, as one of the most powerful economies of the world by the fact that Indian economy has the potential to reach a higher growth rate. This is only possible due to the various reforms undertaken by Prime Minister, Shri Narendra Modi.

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