
ROLE OF ICT IN ECONOMIC GROWTH OF INDIA

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ABSTRACT

In the modern economic perspective information and communication technology is seen as an important production factor by reason of knowledge-driven (new) economy. Many researches assess that knowledge, innovation and technological changes become important factor for economic growth. Further more modern growth theory highlights the importance of knowledge for economic growth. The main purpose of this paper is to put forth the impact of information and communication technology on economic growth. Impact of information and communication technology (ICT) on main sectors that effects growth is aimed to be examined. This will provide a better understanding of impacts of information and communication technology on economic growth.

Keywords: Information and Communication Technology; Economic Growth

INTRODUCTION

Information technology (IT) encompasses the study and application of computers and any form of telecommunications that store, retrieve and send information. With information technology going mobile, thanks Information technology encompasses the study and application of computers and any form of telecommunications that store, retrieve and send information. With information technology going mobile, thanks the deployment of faster and more reliable broadband networks, we are experiencing yet another technology driven transactions. IT is used to automate simple, routine tasks such as word processing and advanced processes such as production, scheduling and logistics. In this manner, information technology enables businesses to operate efficiently and profitably. Technological advances in the past few decades have

greatly increased the competitive nature of the economic business world. Companies have used software, computers and the Internet to transform their businesses from local places of business to national and global market competitors. Many companies have responded to these changes by automating their business processes and capturing industry-related information and using it to their advantage. Technology has also forced businesses to remain flexible, adapting their operations to newer and better technological advances.

Economic growth is the increase in the inflation-adjusted market value of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in real gross domestic product, or real GDP. Growth is usually calculated in real terms i.e., inflation on the price of goods produced. Measurement of economic growth uses national income accounting. Since economic growth is measured as the annual percent change of gross

domestic product (GDP), it has all the advantages and drawbacks of that measure. The economic growth rates of nations are commonly compared using the ratio of the GDP to population or per-capita income. In economics and economic history, the transition to capitalism from earlier economic systems was enabled by the adoption of government policies that facilitated commerce and gave individuals more personal and economic freedom. These included new laws favourable to the establishments of business, including contract law and laws providing for the protection of private property, and the abolishment of anti-usury laws. When property rights are less certain, transaction cost can increase, hindering economic development. Enforcement of contractual rights is necessary for economic development because it determines the rate and direction of investments. When the rule of law is absent or weak, the enforcement of property rights depends on threats of violence, which causes bias against new firms because they cannot demonstrate reliability to their customers.

INFORMATION TECHNOLOGY IN INDIA

Information Technology (IT) can play a part in economic development by providing a thriving industry in its own right that increases employment and boosts exports. The industry may also contribute to broader economic development within a country by creating greater efficiency across industrial sectors, helping to reduce cost and increase the quality of industrial production. Information technology and economic development also link together when service industries are enabled to deliver their services across a greater geographical area. Government services may be improved by the introduction of information technology, assisting back office services and leading to greater efficiency in record keeping. Management of sectors such as transport and utilities also may be improved by the use of specialized information technology services. Countries that encourage the development of a competitive IT industry often see a close connection between information technology and economic development. The barriers to entry into the IT industry are not as great as for other industries and relatively little capital expenditure may be required. A country that has a pool of skilled engineers and computer scientists may have a competitive advantage in IT services.

INFORMATION AND COMMUNICATIONS TECHNOLOGY

Information and communications technology (ICT) refers to all the technology used to handle telecommunications, broadcast media, intelligent building management systems, audiovisual processing and transmission systems, and network-based control and monitoring functions. Although ICT is often considered an extended synonym for information technology (IT), its scope is broader. UNESCO has defined ICT as forms of technology that are used to transmit, process, store, create, display, share or exchange information by electronic means. It includes not only traditional technologies like radio and television, but also modern ones like cellular phones, computer and network, hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing. ICT has more recently been used to describe the convergence of several technologies and the use of common transmission lines carrying very diverse data and communication types and formats. Fig-1 shows the applications of ICT in different sectors.

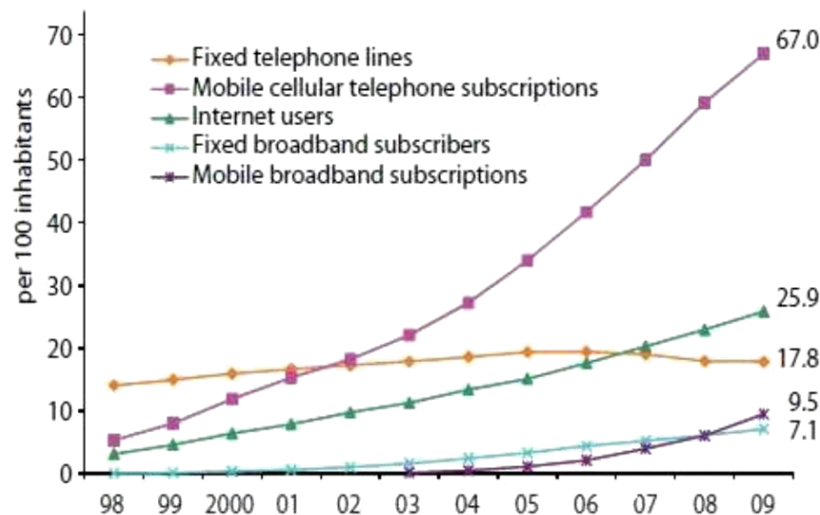


Fig-1: Applications of ICT in different sectors

The IT sector has increased its contribution to India's GDP from 1.2% in 1998 to 7.7% in 2017. According to NASSCOM, the sector aggregated revenues of US\$160 billion in 2017, with export revenue standing at US\$99 billion and domestic revenue at US\$48 billion, growing by over 13%. Fig-2 describes the market size of IT industry in India and Fig-3 shows the top 5 companies for FDI inflow in India.

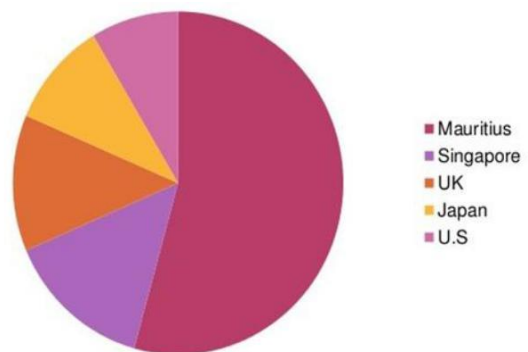
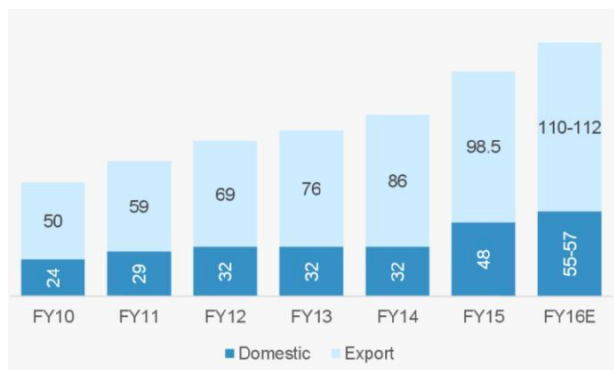


Fig-2: Market size of IT industry in India (USD Billion) **Fig-3: Top 5 Countries for FDI inflow in India**

SIGNIFICANCE OF ICT IN ECONOMICS

Information & communication technology can potentially be used in every sector of the economy. The true impact of IT on growth and productivity continues to be a matter of debate, even in the United States, which have been the leader and largest adopter of IT. There is no doubt that the IT sector has been a dynamic one in many developed countries, and in a developing country like India it has stood out in the form of software exports, despite the

country's relatively low level of income and development. The IT industry has also created significant demand in the Indian education sector, especially for engineering and computer science.

Direct job creation: The ICT sector is, and is expected to remain, one of the largest employers. India is the third-largest start-up hub in the world with over 9200 technology start-ups in 2017-

18. Computer and information technology jobs are expected to grow by 22% up to 2020. India ICT sector employment prospects, both in the near and long term are expected to be broadly positive and encouraging for future. India ICT companies currently served two thirds of the fortune 500 companies and have created 40 lakhs direct jobs in India. 2.5-3 million new jobs will be created by 2025. In FY 2017, the industry added 1,70,000 new jobs. NASSCOM has already publicly contradicted reports of large scale layoff. ICT industry added 600000 in last three years and today, boasts of a total employee base of 3.9 million.

Contribution to GDP growth: A 10% increase in broadband penetration is associated with a 1.4% increase in GDP growth in emerging markets. India's economy grew at an impressive 8.2% in the first quarter of 2018-19 financial year ending June 30 on the back of a strong core performance and a healthy base. GDP at current prices in 2018-19 is estimated at Rs. 44.33 lakh crore, as against Rs. 38.97 lakh crore in 2017-18, showing a growth rate of 13.8%. We project GDP growth to be 6.7% in 2017-18 and accelerate to 7.3% and 7.5% respectively in 2018- 19 and 2019-20. Going forward, sustaining a growth rate higher than the trend growth rate of 7 to 7.5%, Going forward, sustaining a growth rate higher than the trend growth rate of 7 to 7.5%, and reaching a growth rate of 8% or higher, will require contributions from all domestic sectors as well as support from the global economy.

Emergence of new services and industries: Numerous public services have become available online and through mobile phones. The transition to cloud computing is one of the key trends for modernization. Therefore, a major support to growth needs to come from a sustainable recovery in private consumption and investment. Further, we expect government expenditure to play a year, as a whole, we expect growth to rise to 7.3% from 6.7% in 2017-18.

Workforce transformation: New “micro work” platforms developed by companies like o Desk, Amazon and Sam a source, help to divide tasks into small components that can then be outsourced to contract workers. Digital transformation is the driving force behind the strategic and innovative use of technologies, and it's already transforming how and where work gets done. As new generations enter the workforce, ICT departments are preparing to meet their expectations for friction less, high-quality collaboration and communications.

Business innovation: OECD countries, more than 95% of businesses have an online presence. The Internet provides them with new ways of reaching out to customers and competing for market share. Technology is usually associated with world changing innovations that

revolutionize how we live. But technology can also play a big role in the smallest scale, incremental improvements that are the real bread and butter of business innovation.

CONCLUSION

This paper concentrated on exploring the effect of ICT use index on economic growth. The results show that ICT use has a significant effect on the economic growth of these countries. The coefficient measuring the effect of the ICT use on economic growth was positive, indicating that ICT affect economic growth of the 159 countries in a positive way. Furthermore, in high income countries ICT use index has the strongest effect on real GDP per capita among the others

while this effect is the lowest in countries with low level of income. Consequently, ICT plays a vital role as a mean for economic growth. Therefore, it seems necessary for all countries to increase their ICT use index through increasing the number of internet users, fixed broadband internet subscribers and the number of mobile subscription per 100 inhabitants in order to boost economic growth. It is also essential for the governments to provide the society with information, up-to-date structures and educate people in order to use ICT efficiently. This has helped in the expansion of the job market in India as an increasing number of people are landing jobs with the international information technology companies and are living better lives. Foreign direct investments in India's information technology industry has also been contributed to by the remarkable growth of the industry in the recent years

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