

# Role of ICT in Economic Growth of India

Sonam Jakhar

Assistant professor, Department of Economics, Chaudhary Bansi Lal University, Bhiwani

**Abstract:** *Information and Communication Technologies (ICTs) play a pertinent role in Economic growth and development of India. India is a country of more than 500 villages consisting 60 percent of its total population. So from the development point of view, it has been the main focus of the government to include all the disadvantaged and weaker sections of the society into the arena of equal growth and opportunities to all by providing better services of infrastructure, agricultural development, financial services and public health services etc. to the rural area of the nation. All the decisions whether political, social, economic, cultural and behavioral today depends on the ability to access, gather, analyze and utilize Information and Knowledge. So this paper aims at examining and analyzing the impact of ICT on economic growth of India. Secondary data has been used to arrive at logical conclusion, collected from various government websites and statistical report. The paper concludes with an overall assessment of different sectors of IT industry and the spillover of its unexpected successful outcomes on the whole economy.*

**Keywords:** ICT, Economic growth, Mobile Ecosystem

## 1. Introduction

ICT means the way we get the information, we use the information and we communicate the information. It is the digital device that makes information accessible across the globe. It is the duct that imparts information and knowledge to individuals in order to get them economically and socially empowered. It is the most effective tool of the development process that will lead to facilitate the environment conducive for the better life of rural people. In this direction, the government of India is taking many relevant steps to bring the whole nation under a single umbrella. It is having an ambitious objective of improving the citizen-government interaction at all levels by the electronic mode (e-Governance) by 2020. The day is not far when people will be carrying a handheld device connected to the Web to get the information about the World at their fingertips. The Indian Information Communication Technology (ICT) industry is contributing significantly to the national economy in various ways and in the time to come it is expected to be a sector in which India can achieve a comparative advantage. That's why almost all states of India are targeting this sector as driver of economic development. At present, the ICT sector is clustered in six cities: Bangalore, Chennai, Pune, Hyderabad, the National Capital Region (Noida, Delhi and Gurgaon) and Mumbai. However, efforts are being made by the central and state governments to spread the sector to second-tier cities also.

According to a report by Boston Consulting Group, increased access to the internet will also influence shopping patterns, replicating the trend seen in Urban India. In fact, in several categories like mobile devices, laptops and PCs, the digital influence in rural areas is approaching the same levels as in cities. By 2020, rural users will make up 48 percent of all connected consumers in India that will be a major contributor of rural development in India.

## 2. Evolution of Indian ICT Sector

The Indian IT Industry consists of software industry and information technology enabled services (ITES), which also includes business process outsourcing (BPO) industry. The

Indian ICT sector has evolved in three phases: up to 1984, 1984–1990 and post-1990. In the first phase, the state tried to run the industry resulting in no commercial sector along with attempting to establish its own technological trajectories. In 1970's the Indian economy was state-controlled and remained antagonistic to the software industry. The Import tariffs were high like 135% on hardware and 100% on software. Even the exporters were not eligible for bank finance. In the second phase, the government felt that software was a practicable option for income generation and technological efficiency enhancement. In 1984, Government introduced New Computer Policy (NCP-1984) which reduced import tariffs on hardware and software to 60%. In the third phase, the software export industry progressed by leaps and bounds, heavily promoted by both national and state governments. Consequently, the export-dominated growth model ignored the hardware sector and its huge potential. Though the ICT sector is growing in all domains, it is primarily driven by software services and telecom services.

Until the 1990s, due to the excessive controls imposed by the state, there were little incentives for private firms to invest in R&D. The Indian ICT sector is dominated by the larger players with the only top 200 firms contributing about 86% of the total revenues. Multinational firms are also investing their Indian R&D centers. Now Metro Cities like Bangalore, Delhi, Mumbai, Chennai and Hyderabad which provide good infrastructure, large space and better telecom facilities, have become the favorite destinations for all the bigger players like HSBC, Dell, Microsoft, Hewlett Packard and various Indian multinational firms like Infosys Technologies, Wipro, and Micro land have set up their offices in these cities. As a result, Indian IT Industry's contribution to the world's information technology sector is of highest reputation.

From time to time various schemes have been introduced by the government of India to make all government services available to the citizens of India through electronic media. In this direction, national e-Governance Plan (NeGP) was introduced by the government in 2006. Recently Digital India is a major campaign launched by the government of India to increase the use of technology to connect and

empower the people in areas relating to the education, health, employment, labour and commerce that will help to make the government more transparent.

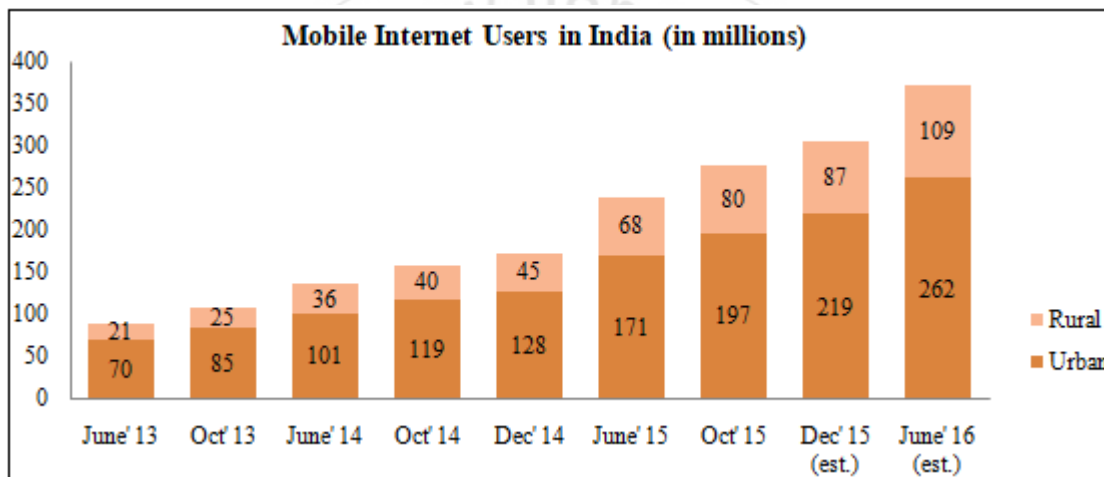
**Key Findings:**

Internet and Mobile Association of India (IAMAI) on 17 November 2015 released a report entitled **Internet in India 2015 report**. The report surveyed usage of internet on different devices (mobile, desktop, etc), in different areas (village and urban) and among different demographic segments. As per the report estimation, India's internet user base will touch 402 million by December 2015 making it the second-largest in the world only after China.

**Highlights of Internet in India 2015 Report:**

- The number of Internet users in India is expected to reach 402 million from currently 375 million, by December 2015 registering a growth of 49 percent over previous year that will lead India to surpass the USA and become the second largest user base next only to China having 600 million internet users.

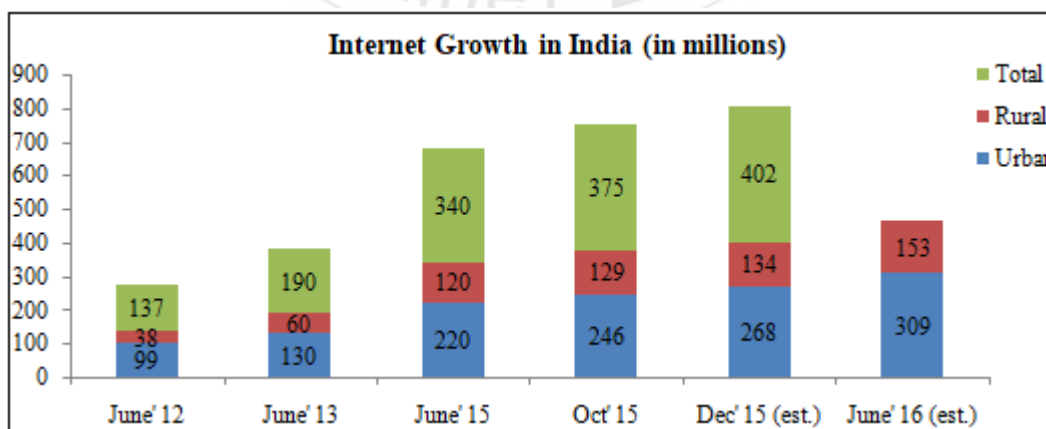
- It took more than a decade in India for internet users to move from 10 million to 100 million and 3 years from 100 to 200 million, but now it took only a year to move from 300 to 400 million users.
- On aggregate, 71 percent male and 29 percent female are Internet users in India. The Internet usage has been growing at a rate of 50 percent among males while it is growing at 46 percent for female users
- In Urban India, the ratio between male to female Internet users is 62:38. As per the report, 69 percent of users are using Internet on a daily basis. This daily user base has gone up by 60 percent from last year and mobile Internet user base has grown at a rate of 65 percent over last year to reach 197 million in October 2015.
- In Rural areas, among the Rural Internet users, 88 percent are males. The Internet users among females are growing at 61 percent and 79 percent among males. The user base of mobile internet users in Rural India is projected to reach 87 million by December 2015 and 109 million by June 2016.



**Figure 1.1**

So it is not surprising that mobile is responsible for a big block of this growth. It can be seen clearly from the fig. 1.1 that in urban India, the mobile internet user base grew by 65 percent over the last year to reach 197 million in October

2015. And in rural India, the mobile internet user base is expected to reach 87 million by December 2015 and 109 million by June 2016.



**Figure 1.2**

As it is clear from the fig. 1.2 India will have 462 million internet users by June 2016 showing a growth of 35 percent over the same previous period last year, out of which 309

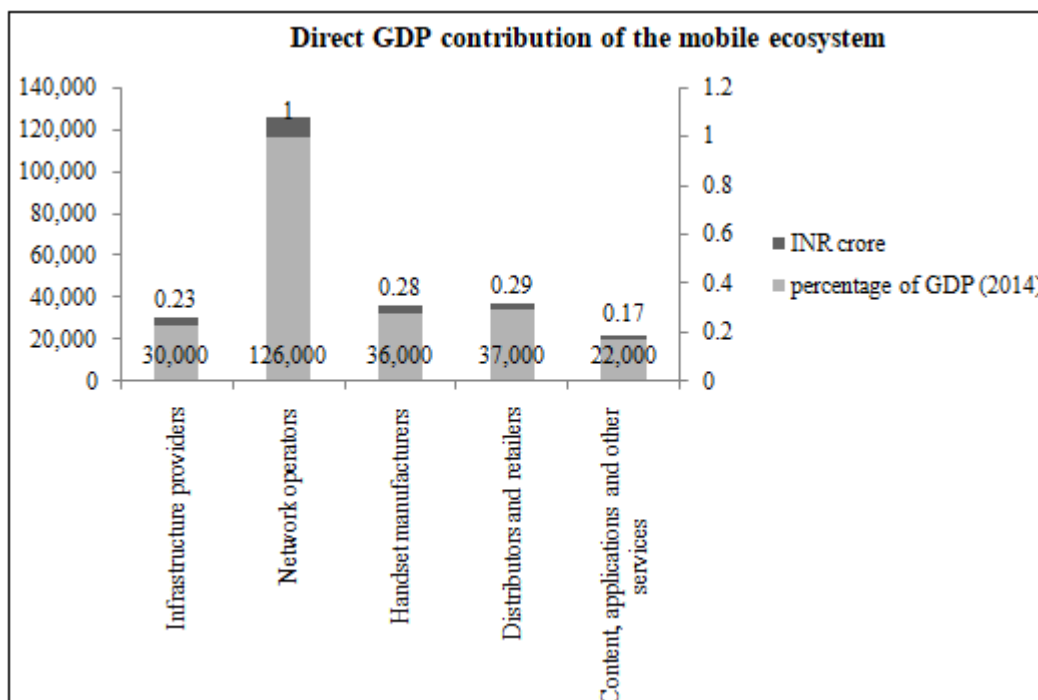
millions will be from urban India and 153 millions will be from rural India. Another interesting point of the report is that the top eight metros continue to be the single largest

block of users, contributing for 31 percent of overall user base.

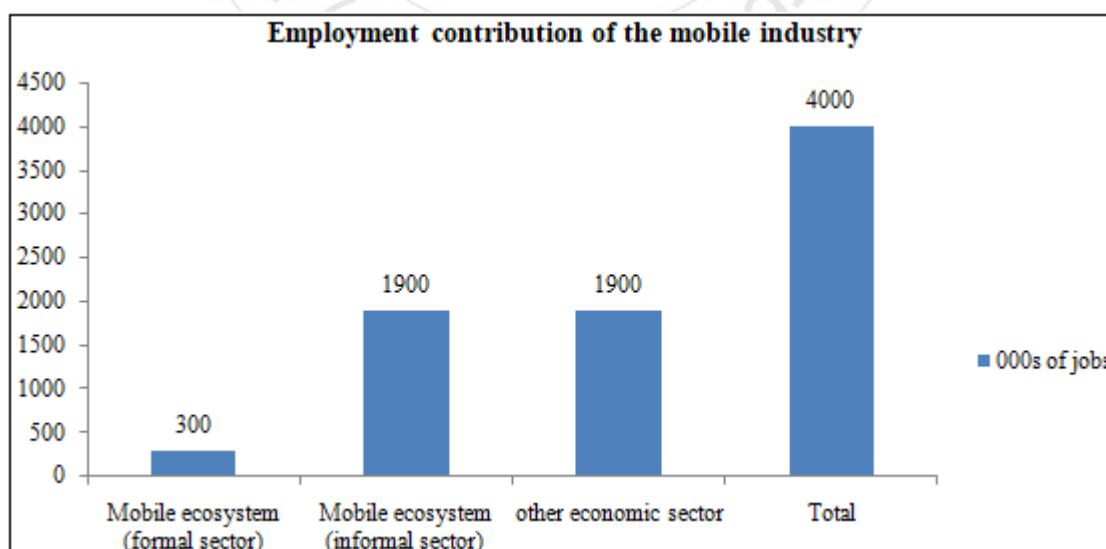
### 3. Role of Mobile Industry in Economic Growth and Job Creation

Companies operating in the mobile ecosystem of India generate value addition which is calculated as direct economic contribution of mobile network operators and the mobile ecosystem to GDP of India. In 2014, the mobile ecosystem contributed a value addition of INR250,000 crore (2% of GDP), of which the greater part came from the mobile operators alone contributing directly a total of

INR126,000 crore (1% of GDP). In addition, mobile operators and the ecosystem helped to provide direct employment to nearly 2.2 million people in 2014 in India along with 1.9 million additional jobs that were supported indirectly in other industries which depend on the economic activities of the mobile industry. Consequently, mobile technology has transformed the way economic activities are carried out in various sectors of the economy by easing ways of doing business and allowing more effective and efficient ways to access and communicate information. So we can say that it has become a key driver of economic growth and development.



**Figure 1.3**  
 Source: GSMA Intelligence



**Figure 1.4**

Source: GSMA Intelligence

So it can be clearly seen from the fig 1.3 that on aggregate, the mobile ecosystem is estimated to contribute 2 percent of

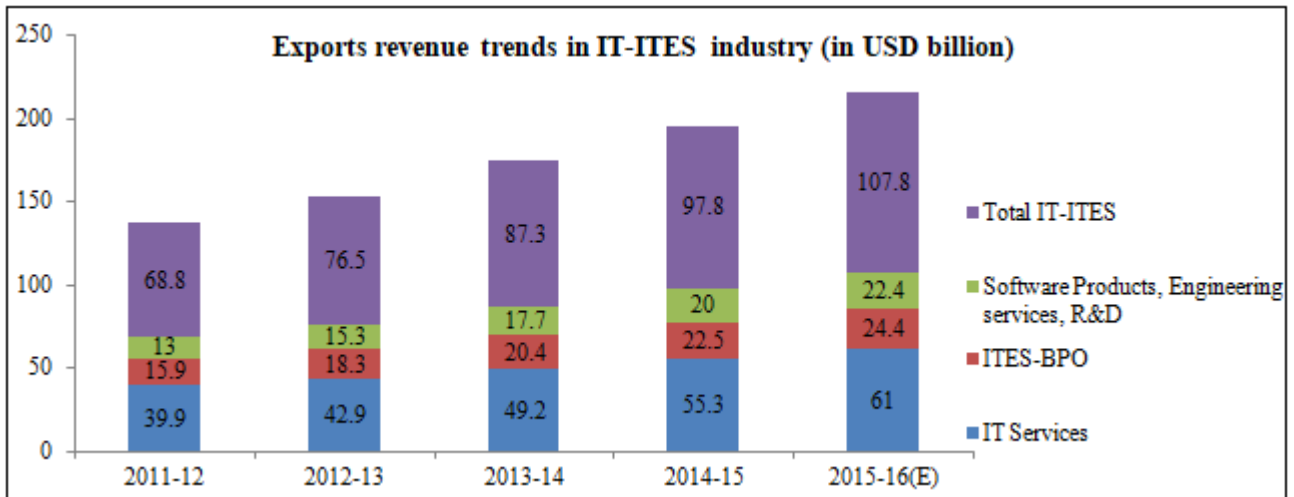
GDP of India in 2014, driven by the mobile network operators alone contributing 1 percent of total GDP with a value addition of INR 1,26,000 crore. Besides, the mobile

ecosystem has created 2.2 millions of jobs in 2014, of which 0.3 million jobs has been provided by the formal sector and 1.9 million jobs by informal sector, which has been shown in the fig. 1.4. Not only directly but indirectly also this sector is contributing in creation of jobs as the data reveals that this sector helped to provide an additional 1.9 million jobs through other economic sectors.

#### 4. Role of IT industry in exports revenue of India

IT-ITES exports revenue is estimated to be US\$ 107.8 billion in 2015-16, registering a growth rate of 9.0 percent

over previous year and contributing approximately 83 percent of the total IT-ITES revenues (excluding hardware). During 2015-16, IT services exports (excluding BPO, Engineering, R&D and Software products) is expected to register an y-o-y growth of over 10.3 percent, alone generating exports revenue of US\$ 61.0 billion. During 2015-16, ITES/BPO exports are likely to be US\$ 24.4 billion with a growth rate of 8.4 percent over previous year. Software products, engineering services and R&D segment are estimated to generate exports of US\$ 22.4 billion in 2015-16 with y-o-y growth rate of 12 percent.



**Figure 1.5**

Source: Ministry of Electronics and Information Technology

#### 5. Conclusion

Thus from the above analysis it can be concluded that ICT industry has contributed a lots in promoting the economic growth of the nation through employment generation, direct GDP contribution and exports revenue generation, playing a significant role in the development of the country. In addition, this sector has played a prominent role in emergence of new services, Workforce transformation and Business innovation. The emergence of the industries like the Facebook app industry alone created over 1,82,000 jobs in 2011. ICT has also helped to the rise of entrepreneurship, by making it much easier for self-starters to access best practices, marketing legal and regulatory information and investment resources. It has contributed in the promotion of the researches and innovations also. As the internet provides the new ways of reaching out, approaching and serving to customers though which it helps to improve efficiency, increasing competition and streamline business processes. Therefore it demands for major initiatives by the government to help ICT industry to grow even more rapidly as it is one of the key drivers of the economic growth of the nation.

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