

Chapter X

ROLE OF INFORMATION TECHNOLOGY AND INFORMATION TECHNOLOGY ENABLED SERVICES IN INDIA'S ECONOMIC DEVELOPMENT

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ABSTRACT

The IT and ITeS Sectors have played a significant role in the growth story of India's economy. Ever since the introduction of economic reforms and the implementation of the New Industrial Policy based on the three pillars of liberalisation, privatisation and globalisation, the services sector and within the services sector the IT and ITeS sub-sectors has become vital to the development process. This paper based on secondary data sources essentially attempts to throw light on the contribution of the IT and ITeS sector to exports, employment and the Gross Domestic Product. It also highlights the problems and challenges faced by the IT sector in India.

Key Words: Information Technology, ITeS, Exports, Employment, GDP.

INTRODUCTION

Information Technology (IT) is a knowledge based industry. The process of digitization is dependent on this vital sub sector of the services sector. The IT sector has a remarkable potential for accelerating economic growth of the nation. It has the potential to improve the productivity of almost all sectors of economic development. Information technology has made our governance efficient. It enhances access to information, provides access to government services, protects consumers, makes skill development and training more effective, facilitates delivery of health services and promotes transparency.

The origin of IT industry in India can be traced back to 1974 when Tata Consultancy Services (TCS) got its first US client - Burroughs Corporation, United States. The job assigned was to write software code for the Burroughs machines. With that opportunity started the growth story of TCS and the IT sector in general. The IT and ITes sector has experienced exponential growth in the last few decades. This unparalleled growth can be attributed to various initiatives taken by the government such as liberalization of external trade, elimination of duties on imports of information technology products, setting up of Export Oriented Units (EOU), Software Technology Parks (STP), relaxation of controls on both inward and outward investments and foreign exchange, and Special Economic Zones (SEZ) etc.

The paper seeks to throw light on the contribution of this industry to the nations GDP, employment and revenue generation. It also attempts to highlight the challenges and risks the IT industry faces.

OBJECTIVES OF THE STUDY

- 1) To highlight the importance of the IT sector in terms of its share in Gross Domestic Product (GDP); employment and revenue generation over a period of years.
- 2) To throw light on some of the challenges that are hindering the growth of the IT sector in India.

METHODOLOGY

The study relies exclusively on secondary data sources. Various reports and inputs from readings of published research work in journals have been used in the preparation of this paper.

IMPORTANCE OF THE IT SECTOR IN THE INDIAN ECONOMY

Components of the IT Sector

There are four basic components of the IT sector in India:

- ✓ IT services
- ✓ Business Process Management
- ✓ Software product and engineering services
- ✓ Hardware

a) Contribution to Exports and revenue generation

The Table 1 depicts the market size, export earnings and share of these four sub-sectors/components of the IT Sector (2018)

Table 1: Contribution of sub-sectors of IT Sector

Components	Market Size (\$US billion)	Export Receipts (%)	Share in total IT Sector Revenue (%)
IT Services	86	81	51.7
Business Process Management	32	87	19.2
Software product and engineering services	33	83.9	19.8
Hardware	15.4	NA	9.3

Source: NASSCOM Report 2018

Chart-A
IT-ITes Industry Revenue

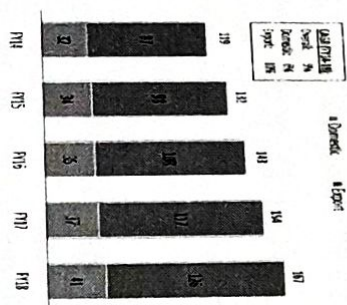
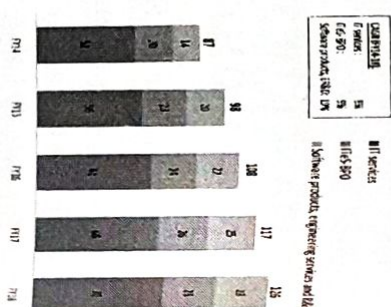


Chart-B
IT-ITes Export Revenue



IT Services dominate in terms of market size, export receipts as also revenue generation. All of the IT industry components derive revenue from both domestic operations as well as through exports. Over the years, government initiatives in the form of digital payments, smart cities, start-up India, digital India etc. have served as a catalyst in the growth of domestic revenues. In terms of revenue generation however, much of the revenue earned i.e. over 80 percent originates from exports. If one considers the total revenue generated by the IT industry as a whole, then more than half of the revenue is contributed by IT services alone. Revenue of the IT industry is sourced both from within the country as also by way of trade with other nations. Its export receipts far surpass domestic receipts as depicted in Chart-A. The countries overall export revenue reached USD 126 bn in FY 18. While the software products, Engineering Services and R&D grew at a CAGR of 19 percent, IT Services and ITes grew at a CAGR of 8 percent and 9 percent respectively. Out of USD 126 bn earned by way of export receipts in FY 18, 55.6 percent originated from the export of Services while 44.4 percent of the export revenue was sourced from ITes and the export of software, engineering services, research and development. Being one of the largest off shoring destinations for different IT companies across the world, the business process management market in India is also of considerable importance.

b) Contribution to Employment

The contribution of information technology to employment generation is both direct and indirect. Directly, the growth of the computer hardware and software industries are generating new job opportunities in India. Indirectly, the adoption of computer technology by other industries expands the range of services they provide and can stimulate more rapid growth of these sectors. The indirect impact of IT is far larger than the direct impact. India has become the digital capabilities hub of the world with around 75 per cent of global digital talent present in the country. The rapid growth of IT industry in India has created a large number of jobs thus raising the socio-economic level of a large number of families. The big and small software companies, BPOs, and other related business centres employ a large number of skilled and even unskilled people.

Table 2: Employment in IT/ITes Industry

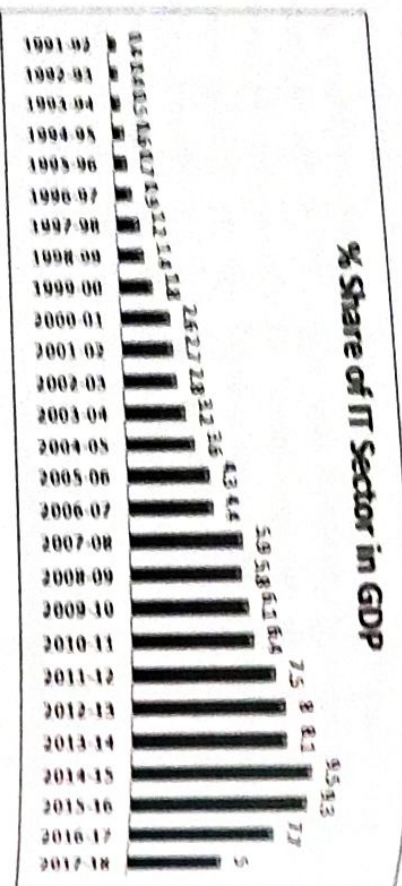
Year/Segment	2013-14	2014-15	2015-16	2016-17	2017-18(E)
IT Services & Exports	1.6	1.74	1.846	1.921	1.984
BPO Exports	0.989	1.03	1.086	1.152	1.191
Domestic Market	0.699	0.745	0.758	0.790	0.793
Total Employment	3.267	3.485	3.690	3.863	3.968

Source: www.ibef.org

c) Contribution to Gross Domestic Product

The IT and ITes have essayed an important role in the country's growth process. The contribution of this sector to N.I improved with the introduction and implementation of the LPG Policy. Graph depicts the share of IT and ITes to N.I 1991 onwards. There has been a steady increase in the IT sector share in the total GDP having reached a high of 9.5 percent in 2014-15. However, the sector has been experiencing problems. There are signs the growth is slowing. According to

the National Association of Software and Services Companies (NASSCOM), the IT sector in India only grew by 5 percent in 2018. Furthermore, hiring rates have decreased by around 40 percent in the last three years.



CHALLENGES TO THE IT SECTOR

NASSCOM CEO Survey 2019 highlights the following risks that hinder growth of the sector:

- ✓ Increased protectionist policies against India
- ✓ Lack of digital capabilities and skills
- ✓ Cyber risks
- ✓ Threat from advanced technologies like unethical AI automation
- ✓ Increased competition from emerging markets and small players in the industry.

Several other factors have had an adverse impact on the performance of the IT Sector and pose severe challenges to the sectors future progress. Stringent H1-B Visa Policy changes by the US administration have had a negative impact on the IT sector in India, reducing the possibility of Indians finding jobs in the US market. Data released by the US Citizenship and Immigration Services indicates that Indians account for about 75 percent of the total H1-B Visas issued by the US administration. Tweaking of the Visa policy is going to have a depressing impact on the Indian IT sector.

India is by and large an IT exporter. The economic slowdown in the importing countries by default also implies a slowdown in the domestic IT Sector. Competition from newer players in this sector has worsened the situation for the sector in India. Furthermore, stringent data protection and privacy laws introduced in other countries is making it all the more difficult for Indian IT firms to do business as our firms do not confirm with the requirements that these data protection laws call for. For example, the European Union enacted the General Data Protection Regulation law (GDPR) with effect from May 2018. Not all IT companies in India conform to the rules and regulations envisioned therein limiting therefore their ability to offer IT services in the EU.

Lack of skilled labour, infrastructural lacunae and the time lag in adopting and embracing new digital technologies inhibits the Indian IT companies from enjoying the economies of reduced costs and increased productivity.

More recently the Corona-19 Pandemic has had devastating impact on the economies of all nations and India has been no exception. The rampant spike in Covid-19 cases all across the nation and the lockdown necessitated by the same has virtually crippled the performance of the economy including the IT and ITes sectors.

CONCLUSION

The IT sector has essayed a significant role in India's development story. It has contributed largely to GDP, revenue generation, exports and employment. The India growth story has been IT driven. However, there are the major challenges faced by the IT industry in India. These challenges have become barriers to the growth of leading IT companies in the country leading to job losses. These challenges need to be addressed. The need of the hour is for IT companies to embrace digital technologies which can enable them to compete with global players in the sector.

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