

Facets Of It Sector In Indian Economy

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Abstract

The computer software and services industry is a highly dynamic industry and its phenomenal growth offers great opportunities for economic growth and development. IT sector plays a major part in contributions of GDP, revenue, employment opportunities in all major countries of the world. In the last twenty years, software industry has become an essential part in all businesses across all countries of the world. India is the world's largest source of destination for the IT industry and this has placed India on top in the global map. The contribution of IT sector to India's GDP has increased to approximately 8 percent in 2020 from 1.2 percent in 1998. Nearly 10 percent in the contribution of GDP indicates that IT sector has grown to considerable heights. IT sector adds 1,60,000 employees and provided direct employment to 3.7 million people and indirect employment to 10 million people.

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I. Introduction

The origin and growth of IT sector in India have been phenomenal during the last two decades and it is considered to become an economic superpower by 2020. IT has been showing a consistently upward trend since the 1990's. Due to the highly talented human resources, good infrastructure facilities and policy offered by the Union and the State Governments, the IT sector grew in major parts of the country and India became the world's largest sourcing destination in the world. An important step towards the growth of IT sector in India has been the establishment of Software Technology Parks of India (STPI) by the Ministry of Information Technology, Government of India. The education and employment fields have changed and created a significant demand for Engineering and Computer Science courses. It has played a key role in putting India on the global map. With the new millennium, this industry has become the country's premier growth engine, crossing significant milestones in terms of revenue growth, employment generation and foreign exchange earnings. The contribution of IT sector is significant in generating more employment opportunities, revenue, exports and GDP.

II. Data Source And Method

For a detailed analysis of the performance of IT sector in India, relevant data were collected from secondary data. Relevant secondary data were collected from journals, brochures, other research publications and official websites of NASSCOM (National Association of Software and Service Companies), Ministry of Electronics and Information Technology, Government of India (GOI), STPI (Software Technology Parks of India) and Techno park, Thiruvananthapuram. The secondary sources of information are essential to understand the contributions of IT sector in India.

III. Results And Discussion

An analysis of the performance of IT sector in India enable us to understand the contributions of IT sector in generating more employment opportunities to technically skilled young people, revenue, exports, and in increasing GDP. This paper will give an overall picture of contributions of IT sector in Indian economy.

Employment Status

The emergence of Indian information technology sector has brought about drastic changes in the Indian job market. The IT sector of India offers a host of opportunities of employment. With IT companies like Infosys, Cognizant, Wipro, Tata Consultancy Services, Accenture and several other IT firms operating in some of the major Indian cities, there is no dearth of job opportunities for the Indian software professionals. All these have solved the unemployment problem of India to a great extent. Moreover, IT has spawned a number of ancillary businesses such as transportation, real estate and catering and has contributed to a rising class of consumers with high disposable income as well as a rise in direct tax collection. The export oriented software and service sector is indeed the driving force of Indian IT industry and is considered as the engine of growth and earner of foreign exchange.

In 2016 IT sector generated 3.7 million jobs and added 1.1 million jobs in last 5 years. Indian IT industry is a Global talent powerhouse showcasing diversity and leadership in digital skills and annual talent output is 6.2 million (NASSCOM, 2017). IT sector employees are 10 lakhs workforce in various sectors. Estimated employment for the year 2015-16 is to touch 3.688 million. The Table 3.1 shows employment in IT sector in various years.

Table 1
Employment status (in millions)

Year/Segment	Total Employment
2001-2002	0.52
2002-2003	0.67
2003-2002	0.83
2004-2005	1.06
2005-2006	1.29
2006-2007	1.62
2007-2008	2.01
2008-2009	2.21
2009-2010	2.27
2010-2011	2.54
2011-2012	2.78
2012-2013	2.97
2013-2014	3.29
2014-2015	3.52
2015-2016	3.69
2016-2017	3.86
2017-2018	3.97
2018-2019	4.10
2019-2020	4.36
2020-2021	4.50

Source: Ministry of Electronics & Information Technology, Government of India

The Table 1 shows contributions of employment opportunities by different segments of IT sector in various years. In total employment the IT sector's share is increasing. Even though, the recessionary trend in the economy made a little fall in BPO exports during 2009-2011 period, after that period there is an increasing trend in the employment generation.

Table 2
Direct and Indirect Employment of the IT industry in India (in Millions)

Year	Direct Employment	Indirect Employment
2008-09	2.23	8.00
2009-10	2.30	8.20
2010-11	2.50	8.30
2011-12	2.80	8.90
2012-13	3.00	9.50
2013-14	3.29	10.00
2014-15	3.52	10.00
2015-16	3.70	10.00
2016-17	3.86	12.00
2017-18	3.90	10.0
2018-19	4.10	10.5
2019-20	4.36	11.0
2020-21	4.47	11.3
2021-22	4.60	11.7
2022-23	4.50	11.5
2023-24	4.70	12.0

Source: NASSCOM

The Table 2 shows direct and indirect employment of IT sector in India in various years and it shows an upward trend. In 2015-16, IT sector generated 3.7 million direct employments and 10 million indirect employment. Over the years, direct employment offered by the IT sector has been increasing.

Revenue

As shown in Table 3, revenue generated by Indian IT-ITES industry is USD 129.5 billion in 2015-16 as compared to USD 118.8 billion in 2014-15, registering an increase of around 9.0%. It can be observed from the Table 3.3 that revenue generated from the IT sector is increasing year by year. This is a positive sign to our

economy. Throughout the period, revenue generated from export was higher than domestic revenue. In 2015-16, revenue from export was nearly five times greater than domestic revenue.

Table 3
Revenue from IT Industry (in USD billion)

Year	Export	Domestic	Total
2001-02	5.8	2.1	7.9
2002-03	5.5	2.4	7.9
2003-04	7.3	3.1	10.4
2004-05	10.0	3.5	13.5
2005-06	13.3	4.5	17.8
2006-07	18.0	5.6	23.6
2007-08	23.1	7.9	31.0
2008-09	26.5	8.3	34.8
2011-12	68.8	19.0	87.8
2012-13	76.5	19.2	95.7
2013-14	87.3	19.0	106.3
2014-15	97.8	21.0	118.8
2015-16	107.8	21.7	129.5
2016-17	117.0	24.0	141.0
2017-18	126.0	25.0	151.0
2018-19	136.0	26.0	26.0
2019-20	147.0	27.0	174.0
2020-21	150.0	45.0	195.0
2021-22	178.0	49.0	227.0
2022-23	194.0	51.0	245.0
2023-24	200.0	54.4	254.4

Source: NASSCOM

Exports

In early 1990's major export destinations were USA, UK, other European Countries, Australia, New Zealand. Nearly 60-65 percent of software exports was to USA. According to 2015-16 data, major export destinations are as follows: USA (63%), UK(13%), other European Countries (11%), Australia and New Zealand (4%). There is an increasing trend in export revenue. In 2001 onwards, the export revenue of IT sector is USD7.6 billion, of which, the share of IT service is 5.8, ITes-BPO is 1.5 and Software Products, Engineering Services, R&D is 0.3. Export revenue in 2015-16 is 107.8 and segment wise analysis shows that 61 percent constituted by IT service, 24.4 percent by ITes -BPO and 22.4 percent by Software products etc. The segment wise data showed that compared to ITes – BPO and Software product, the share of IT service is significant. Indian IT sector continues to face challenges of competitiveness in the globalized world, particularly from countries like China and Philippines.

Table:4
Segment-wise Export Revenue Trends in the IT Sector in India (in USD Billion)

Year	IT Services	Business Process Management (BPM)	Software Products & Engineering Services	Hardware
2018	86.0	30.0	33.0	10.0
2019	95.0	32.0	35.0	12.0
2020	99.0	34.0	37.0	12.0
2021	102.0	38.0	40.0	16.0
2022	109.0	44.0	42.0	19.0
2023	118.0	49.0	47.0	21.0
2024*	125.0	52.0	50.0	23.0

Contribution of IT sector in India's GDP

IT industry is one of the high growth service industries in India, which has contributed significantly to the upsurge in the Indian economy and has created a huge base of white-collar occupations. IT sector has a major contribution in Gross Domestic Product of the economy. There is an increasing trend in GDP growth. IT sector has emerged as a promising sector for Indian economy because of the faster growth of IT industry and its contribution to the Gross Domestic Product (GDP). The rapid growth of IT industry has made a deep impact on the socio-economic dynamics of the country.

Table 4
Contribution of IT sector to India's GDP

Years	Percentage share of IT industry in GDP
2000-01	2.70
2001-02	2.90
2002-03	3.20
2003-04	3.60
2004-05	4.10
2005-06	4.80
2006-07	5.40
2007-08	5.50
2008-09	5.80
2009-10	6.10
2010-11	6.40
2011-12	7.50
2012-13	8.00
2013-14	8.10
2014-15	9.50
2015-16	9.30
2016-17	7.70
2017-18	7.90
2018-19	7.80
2019-20	7.70
2020-21	8.00

Source: Statista

The Table 4 analyses the percentage share of IT industry in GDP. There is an increasing trend in the contribution of IT sector to GDP and in 2000-01, its share was only 2.7 percent but in 2015-16, its share increased to 9.3 percent.

IV. Conclusion

The IT industry has significantly contributed through socially relevant products/services and community initiatives in human resource development, education, employment, health, encouraging women empowerment.

In the last two decades, the Indian IT industry has contributed significantly to Indian economic growth in terms of GDP, foreign exchange earnings and employment generation. It is quite interesting to note that the impact of IT sector can be divided in to direct and indirect impact. Growing share of GDP, foreign exchange earnings and generating more employment opportunities are direct impacts of IT sector in the economy. Along with direct impacts, the effect of indirect impacts is also tremendous. It led to infrastructural development, balanced regional development and due to the boom in IT sector, most of development of related sectors. Areas surrounding IT Parks also developed, majority people gave their house for rent to IT professionals and obtained huge amounts as rent. Real estate activities flourished around IT sector. Different types of shops, transportation facilities, banking, shopping malls etc developed due to the growth of IT sector. Most of under developed areas began to develop with the emergence of IT industry.

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