

## **Contribution of Information Technology Industries in Indian Economy**

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### **Abstract**

Indian economy has become IT hub in the world economy. India has one of the largest English speaking populations in the world and for labor-intensive industries like call centers, India is ideal destination for outsourcing. IT industry in India has two major components: IT services and business process outsourcing (BPO) The 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%. ([www.statista.com/statistics](http://www.statista.com/statistics)) India economy has become a highly prospective world market providing offering numerous opportunities. There is remarkable growth and development in Indian IT industry since 1980s. The contribution of IT industries in GDP, employments and foreign exchange earnings in remarkably increasing. The role of IT Industries in all the sector – primary, Secondary and tertiary in considerably increasing. Indian economy is shifting from governance to e---governance and traditional economy to digital economy. This paper highlights different aspects of the role of information technology in the evolution of India's economy.

**Keywords:** Information Technology; IT Sector, Indian Economy; Digital Economy

### **Introduction**

Information technology (IT) has become one of the most demanding industries in the world economy and key driver of global economic growth. The IT sector has emerged as a major global source of both growth and employment. Today, cutting-edge technologies such as computers, software and artificial intelligence, fiber optics, networks, and standards have an immense impact on information technologies. It can be defined as the use of hardware, services and infrastructure to create, store, exchange and leverage information in its various forms to realize any number of business purpose. 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. The role of IT industry is playing crucial role in economic development of the country.

There are five principal components of IT industry - (i) Online business (ecommerce) (ii) IT services, (iii) ITES (IT Enabled Services) e.g. BPO (iv) Software Products (v) Hardware. All these components are progressing well and are responsible for ongoing growth curve of India's economy with a steady rise in revenues as witnessed in the past few years. IT / ITES industry in India has seen an unparalleled growth since the last decade.

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Various initiatives of Government of India and the State Governments like, 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), have helped IT industry to gain dominant position in world's IT scenario. So we can say that the IT industry has matured over the years and has proved to be a major contributor to the global economic growth. It has helped India to emerge as a global IT hub.

### **Top 10 Information Technology Companies in India**

There are a number of Information Technology (IT) companies in India. Over the last few decades, top IT sector companies in India have become the global leaders in information technology sector. The Indian IT sector employs more than 40 lakh people and is a \$150+ billion industry. These top Indian IT companies provide solutions to various industries across the globe like manufacturing, retail, government agencies, banking etc. Some of the best Indian IT companies are part of the top software company's world over. Clients of these IT companies come from US, UK, Europe, and APAC and locally in India. Some of the top IT companies in India are TCS, Infosys, Tech Mahindra, Wipro followed by HCL, L&T, Mind tree etc. Here is the list of the top 10 IT companies in India 2018 based on revenues.

**Table 1: Leading Indian IT Firms**

Sr. No.	IT Company
	TCS
	Infosys
	Tech Mahindra
	Wipro
	: HCL Technologies
	L&T Infotech
	Mindtree
	Mphasis
	Oracle Financial Services
	Rolta India

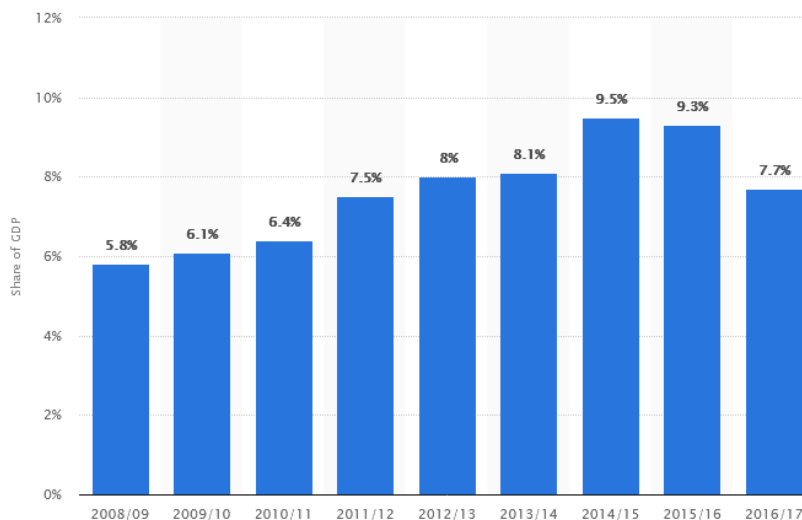
**Table 2 : List of leading IT-BPO firms**

Leading IT-BPO Exporters	Leading BPO Firms	Leading IT-BPO
Tata Consultancy Services Ltd	Genpact India Pvt. Ltd.	Tata Consultancy Services Ltd.
Infosys Ltd	Tata Consultancy Services BPO	Infosys Ltd
Wipro Ltd	Aegis Ltd	Cognizant Technology
HCL Technologies Ltd	Wipro BPO	Wipro Ltd.
Mahindra IT & Business	First source Solutions Ltd.	HCL Technologies Ltd
Mphasis Ltd	Aditya Birla Minacs	Mahindra IT & Business
iGate	WNS Global Services (P) Ltd	Genpact Ltd.
Larsen & Toubro Infotech Ltd	Infosys BPO	Serco Global Services
Syntel Ltd	Serco Global Services Ltd	Capgemini India Pvt. Ltd.
CSC, India	EXL Services	Mphasis Ltd.

Polaris Software Lab Ltd	Hinduja Global Solutions Ltd	Aegis Ltd.
MindTree Ltd	HCL Technologies Ltd.-Business	iGate
Zensar Technologies Ltd	Hero Management Service Ltd	Firstsource Solutions Ltd
Infotech Enterprises Ltd	Mphasis Ltd	WNS Global Services (P)
Hexaware Technologies Ltd	Syntel Ltd	CSC, India
KPIT Cummins Infosystems Ltd		Syntel Ltd
Honeywell Technology Solutions Lab Pvt Ltd		exl Services.com (India) Pvt. Ltd.
NIIT Technologies Ltd		Hinduja Global Solutions
3i Infotech Ltd		L&T Infotech
Infinite Computer Solutions (India) Ltd		Convergys India Services Pvt Ltd.

**Contribution to India's Economy in Terms of GDP**

Indian information technology industry has grown manifold during the period 2009 to 2017 as shown in the graph. The industry has contributed significantly to the economy in terms of GDP, foreign exchange earnings and employments.

**Figure 1: Share of IT companies in GDP in India**

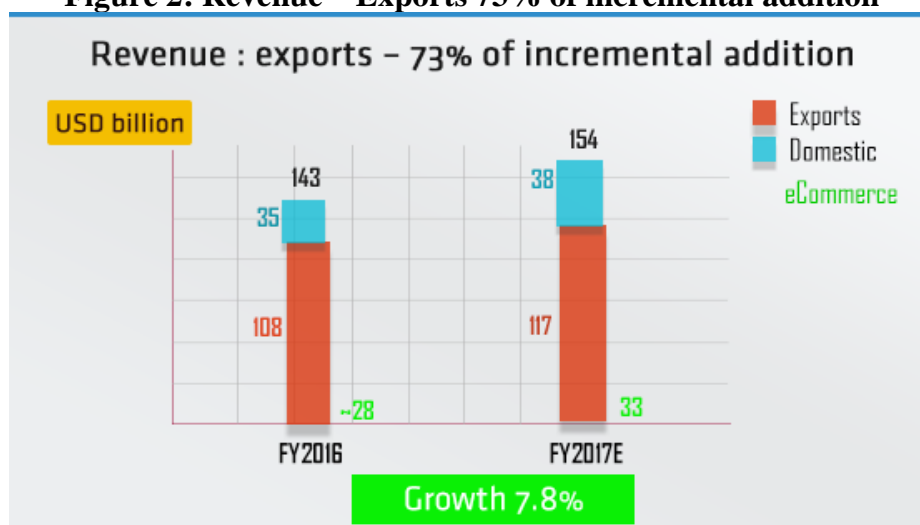
Source: <https://www.statista.com/statistics/320776/contribution-of-indian-it-industry-to-india-s-gdp>

Majority of the Fortune 500 and Global 2000 corporations are sourcing IT-ITES from India. There are around 600 centers set up by Indian IT companies in 78 countries catering to the IT related requirements of people in over 200 cities. They are performing very well and showing remarkable double digit growth in terms of national GDP (NASSCOM analysis reports). India is becoming one of the most preferred destinations for business process outsourcing (BPO) as far as IT enabled services are concerned. These services are boosting Indian economy and this is evident in their contributions to national gross domestic product (GDP). According National Association of Software & Services Companies. India's near \$167 billion IT services industry is expected to grow 7-9 % in 2019 and Growth for 2017-18 is projected at 7.8 %.

### Generation of Employment Opportunities

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 centers employ a large number of skilled and even unskilled people. The total employment in IT-ITES industry has been rising over the years and reached around 3.688 million in 2015-16. Around 5% of the employees working in IT-BPO industry come from the economically backward sections of the society. Employment to one person per family brings a large difference to their economic status.

**Figure 2: Revenue – Exports 73% of incremental addition**

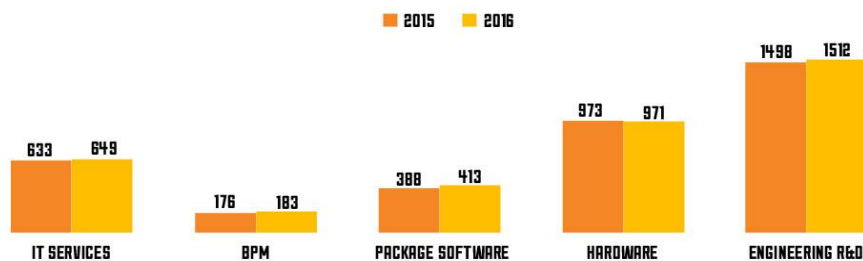


Source: <https://www.nasscom.in/knowledge-center/publications/it-bpm-industry-india-2017-strategic-review>

India's IT-BPM industry is projected to grow ~8% in FY2017 to USD 154 billion. In light of the very disruptive emerging technologies, the industry is re-imagining itself to become the Digital Solutions Partner for the world. This report analyses the IT-BPM market size by segments (IT services, BPM, ER&D, Software Products and e Commerce).

With an aspiration to touch USD 350 Billion in revenue by 2025 from the present USD 143 Billion, India's Information Technology and Business Process Management (IT & BPM) sector has continued to record double digit growth despite static growth in global tech spending. An important growth driver, it contributed 9.3% to India's GDP in FY 2015-16. The industry is known for its cost competitiveness and high quality services across the world and has been instrumental in transforming the perception of India in the global economy. This reflects in India's high market share in the global services sourcing industry which stands at 56% (highest in the world).

**Figure 3: Worldwide IT-BPM Service Growth (USD Billion)**

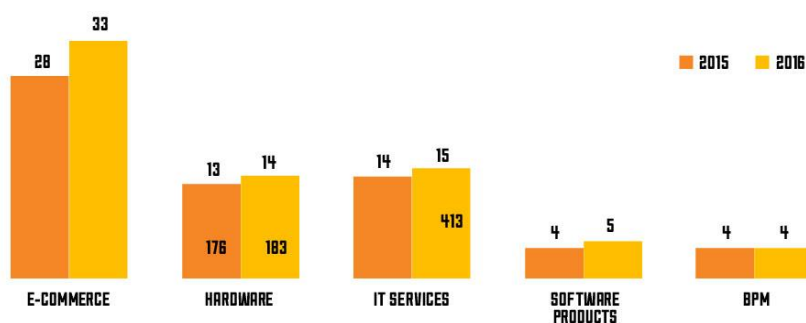


### WORLDWIDE IT-BPM SERVICE GROWTH [USD BILLION]

4% GROWTH OVER 2015

Source: <http://www.makeinindia.com/article/-/v/sector-survey-it-bpm>

**Figure 4: IT-BPM Domestic Market Growth (USD Billion)**



### IT-BPM DOMESTIC MARKET GROWTH [USD BILLION]

8.5% GROWTH OVER FY 2016 [EXCL. E-COMMERCE]  
E-COMMERCE GROWTH OVER FY 2016- 19%

Source: <http://www.makeinindia.com/article/-/v/sector-survey-it-bpm>

**Figure 5: IT-BPM Export Growth (USD Billion)**



### IT-BPM EXPORT GROWTH [USD BILLION]

7.6% GROWTH OVER FY 2016

Source: <http://www.makeinindia.com/article/-/v/sector-survey-it-bpm>

The industry's revenue is projected to grow by 8% from USD 143 Billion in FY 2016 to USD 154 Billion in FY 2017. The sector contributes 38% of the total services exports from the country. India is also world's biggest BPM destination. The e-commerce industry itself is growing at a CAGR of near 20%. Often referred to as the 'Global Talent Powerhouse', the sector is the largest employer within the private sector, employing 3.7 million people directly. India has more than 15,000 outsourcing firms out of which 1000 are large firms, employing a minimum of 5,000 employees each. As the world's third largest tech-start-up hub, India boasts of over 4,700 start-ups. Additionally, India has over 600 offshore development centres of over 78 countries. Global industry giants from France, Germany, USA and Japan presently operate in the country.

A number of factors have been driving the growth of the sector. With India having captured a sizeable portion of the global technology sourcing business, here is a look at the major catalysts for this accomplishment:

**The thrust towards digitisation:** India has successfully established itself as a digital economy with 375+ million Internet subscribers. India's domestic IT-BPM market is growing at an impressive CAGR of 14%. Internet is now closer than ever to the masses. Projects like 'Smart Cities' (which will have IT driven systems to deliver urban utilities) coupled with schemes like National Digital Literacy Mission and e-kranti will continue the wave of digitization- a significant boost to the sector in India. The 'Digital India' campaign has put India on the path of becoming a digital economy and outlook for future seems promising. IT megaprojects such as nationwide broadband highways, universal mobile access and public internet access program are in the pipeline under the Digital India initiative. The National Optical Fibre Network aims to connect all 2,50,000 Gram Panchayats in the country with high speed broadband. IT solutions in the domains of education, healthcare, urban planning and financial inclusion are focus areas of the program and this is creating several opportunities for the IT sector. The Digital India initiative will create around half million direct or indirect jobs.

**Tech startups driving growth:** Technology based startups are also key growth drivers of IT & BPM products in India with more than 4,700 startups currently operating in the country. India's startup revolution will benefit verticals such as Internet of Things (IoT), Machine Learning, Artificial Intelligence (AI) and Health Care technology. In BPM segment, a strong annual growth will be fuelled by newly emerging fields such as cloud, mobility and advanced analytics in 2017. By 2020, Social, Mobile, Analytics, and Cloud (SMAC) market, which is helping attract new customer is projected to reach USD 225 billion by 2020. India's digital workforce comprises over 1,50,000 employees with SMAC skills. ~50,000 employees are skilled in analytics, 30,000 people in enterprise mobility and >50,000 in cloud and social media & collaboration.

**The e-Commerce wave:** The domestic industry has substantially benefitted from the e-commerce and mobile-app industry and the addition of e-commerce in specific is the newly emerging sector sub-segment.

**India – a hub for digital skills & the innovation wave:** The strength of India's IT Sector lies in the skill-set of its people. With the right ecosystem for start-ups and the initiative to re-skill people, India has been able to retain global leadership in digital skills. USD 1.6 billion is spent annually on training workforce in the sector.<sup>17</sup> further; Indian IT firms have been innovating around products and services. Innovations are also being made in



“tech-dependent” areas such as edu-tech and health-tech. This is being led by start-ups in specific.

**Government support:** These significant pillars of growth for India's IT-BPM sector are complemented by Government support, which is consistently working towards sustaining the growth and performance of the sector. The Government's IT/ITeS Sector Skill Council (SSC) is facilitating the expansion of the skill workforce with the help of National Association of Software and Services Companies (NASSCOM). The Government has also been promoting regulatory support to protect intellectual property and strengthen cyber security laws among other things.

### **Conclusion**

In spite high success of Indian information technology industry, there are still many constraints in the expansion of information technology sector. Majority of Indian information technology firms, are small in size, hence cannot explore full potential of global opportunities in this sector. Thus, the industry needs a facilitating environment so that a large number of small firms can grow into large and medium size firms. Most of the present information technology firms are concentrated in few regions. Thus, there is need for location diversification for future development. Indian information technology industry is also dependent on USA market for exports, which is another drawback of this industry. Both the government and the industry will have to take effective steps for promoting research and development (R&D) and quality standards. Government should provide adequate and efficient infrastructure to facilitate future growth of this industry. The Indian IT-BPM industry's continued success is providing a big boost to business and is expected to provide revenues up to USD 300 billion by 2020. But the road is full of challenges like competition, customer understanding, protectionism, economic volatility etc. The concerned stakeholders have to address all these challenges in order to survive. There is need of IT enabled digital transformation in order to compete in the globally connected world.

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