

COVID-19 - PANDEMIC IMPACTS ON INDIAN IT INDUSTRY**SEEMA RANI**

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ABSTRACT

COVID-19 has been a big disruptor. The impact of COVID-19 on organizations and people across the world has been significant. This impact has been completely different across industries and comprehensive. Directly or indirectly, Coronavirus (COVID-19) pandemic has affected most of the companies in India. Increased economic uncertainty and risk may pose significant financial implications. Although India has managed well to date the spread of the virus. The COVID-19 pandemic has already disrupted normal life and economic activity in our nation. The COVID – 19 Pandemic has caused forceful changes in several industries, and data Technology (IT) trade is that the major among them. The negative impacts of COVID are more as compared to positive effects. India is one of the world's hubs of information technology-enabled services. In India, IT companies provide a broad range of services to companies across almost all commercial verticals. It is evaluated that customers in the manufacturing, retail, energy, travel, transportation, and hospitality sectors are directly impacted by this global pandemic. Indian IT corporations might have to be compelled to assess to ensuing impact on their setups from providing company services concerned in these sectors. COVID-19 main impact is on the technology sector. This descriptive article elaborates the studies that how covid-19 global pandemic impacted the information technology industry in India.

Keywords: *COVID-19, pandemic, India, company, software, services.*

INTRODUCTION

Continuous spread of pandemic Covid-19 has drastically disturbed each facet of human life as well as the Indian IT sector. Indian IT industry serves to the assorted customers globally. It's important to know and guarantee however the service is seamlessly provided to the customers with less impact. It has created sudden and extraordinary test within the IT sector. Around the world in several IT corporations, work-offices are secured and work is completed from home. That's why internationalization has braked down significantly. IT sector has been India's main leading sector to economic process over the last few

decades. It plays an important role in fulfilling the country's many bourgeois dreams of bold careers. Corporations operating within the service sector are instantly compact by the measures taken to contain the pandemic prolonged imprisonment, and quality restrictions. Technology corporations have deployed resources to their workers within the secured space from home to implement their contracts. IT corporations' spending's forecasts show continuing demand for cloud infrastructure services. Forecasts conjointly anticipate exaggerated mandate for dedicated package, software, facility, and telecommunication services as administrations inspire workers to work from home. Academic universities and institutes stimulated to on-line courses. Most organizations don't have a tech mass in place for a dependable business-continuity set up (BCP). Information Technology department has played a superior leading role in future BCP's due to enhancing remote work situations. It required facilitate from IT service suppliers in getting devices, fitting up silent, flexible and protected networks, disaster recovery systems, IT security, etc. Demand for ever- faster access to knowledge and automation wants a correct network kit and communications as never before. That's why; the Indian IT industry is moving up to 5G network deployments and implementation of 5G instrumentation. Due to remote work situations, India's IT services have a big holdup in growth thanks to the Covid-19 pandemic. An upmost package businessperson as well as Infosys, Tata Consultancy Services, and HCL Technologies has been impact by the lockdowns across the world. This article highlights on major impacts of Covid-19 on the Indian IT sector.

CONTRIBUTION OF THE INDIAN IT INDUSTRY IN THE INDIAN ECONOMY

Social, Mobility, Analytics, and Cloud (SMAC) have modified the whole business model of IT- BPM info technology and Business process Management (IT-BPM). In May 2017, the government of India had declared to launch of a brand-new theme named the Phased Manufacturing Programme (PMP) to reinforce the assembly of mobile phones within the Asian sub-continent. Indian corporations have already discovered quite one thousand international delivery centers in concerning eighty countries across the world. India's IT outsourcing sector is the central terminus across the world, accounting for roughly 55% of the entire market. IT sector plays a big role within the generation of employment, revenue, and GDP to the nation.

IT industry offers employment to millions of people, directly or indirectly. IT sector is that the biggest employment generator and has bred the mushrooming of many further industries like transportation, education, real estate, security, work, etc. Direct employment within the IT services and BPO/ITeS section is estimated to achieve 4.47million in financial year 2020-2021 (Estimated) with the addition of 1, 38,000 people (consisting of 36 % female employees). Indirect job creation is calculable to be over 12.0 million. Table 1 indicates the employment generation by the IT industry.

Table 1: Employment Generation in IT Industry in India from Financial Year 2016-2021[1].

(In US\$ Billion), E= Estimates

Description	2016-17	2017-18	2018-19	2019-20	2020-21 (E)
Employment (In Millions)	3.86	3.97	4.1	4.36	4.47
Net Addition	1,70,000	1,05,000	2,00,000	2,05,000	1,38,000

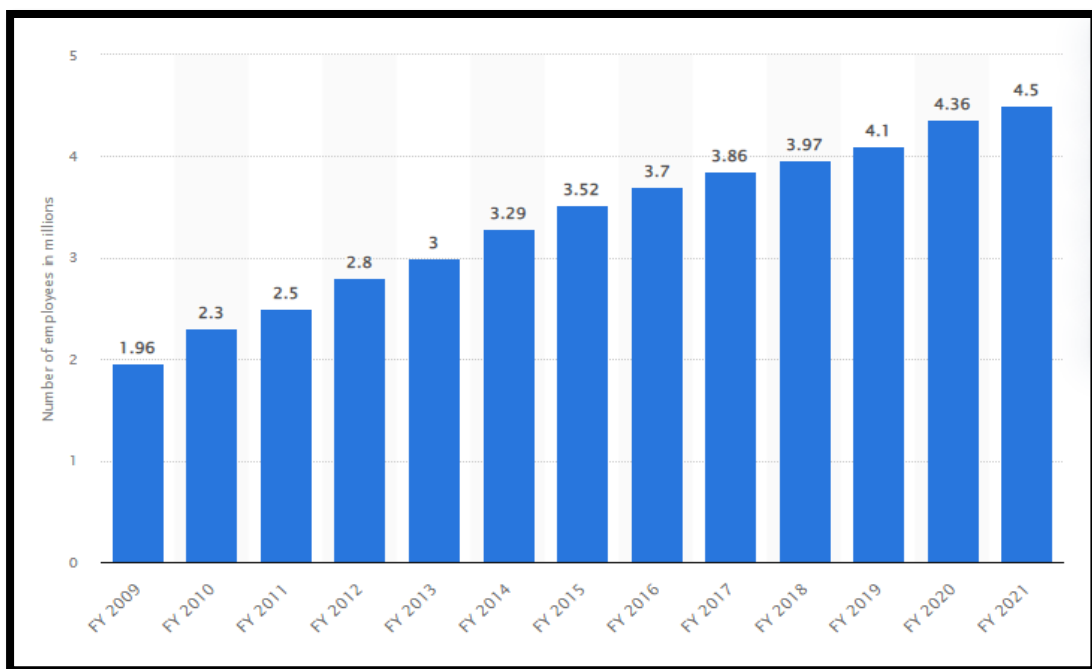


Figure 1: Employment of the IT industry in India from financial year 2009 to 2020[2].

Indian IT-BPM sector has continuing to perform its role as the consistent growth driver for the Indian economy. Export revenue shows a Compounded Annual Growth Rate (CAGR) of 9.98 %, whereas the CAGR reminiscent of domestic revenue is 8.56 %. The entire revenue generated by the IT sector throughout the year 2008-09 and 2012-13 was US\$ 59.9 billion and US\$ 95.2 billion respectively. The entire revenue grew at a Compounded Annual Growth. The Revenue performance of the IT trade of this sector (Both Exports and Domestic) over the last five years is shown in Table 2.

Table 2: Revenue of the IT Industry in India from Financial Year 2016-2021[1].

(In US\$ Billion), E= Estimates

Description	2016-17	2017-18	2018-19	2019-20	2020-21 (E)
Exports	117	126	136	147	150
Domestic	37	41	41	44	45
Total Revenue	154	167	177	191	195
Growth %	7.69%	8.44%	5.98%	7.90%	2.09%

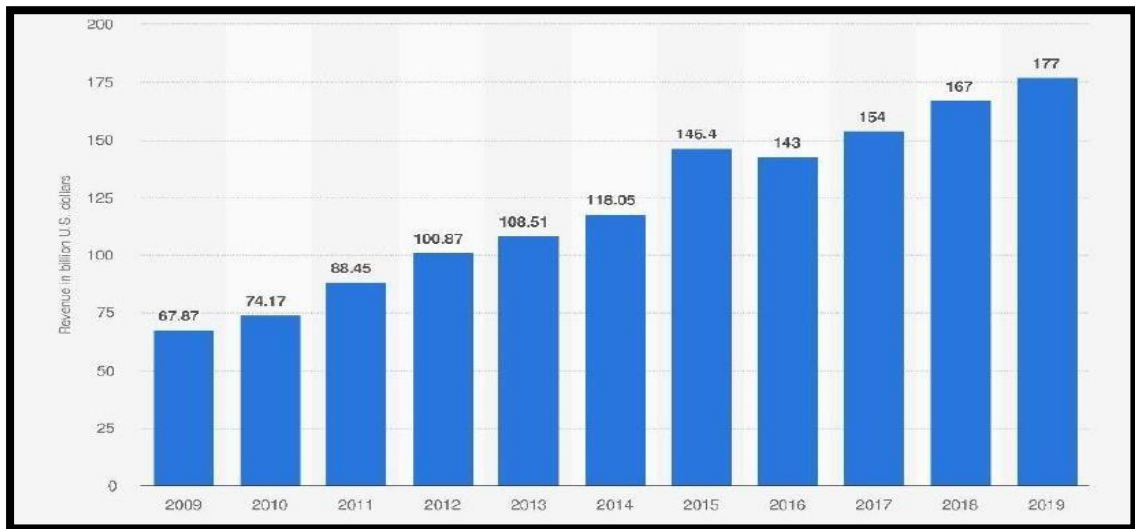


Figure 2: Revenue of the IT Industry in India from Financial Year 2009-2019. (In billion USDollars) [2].

The Indian info technology and business Process management industry had over four million employed personnel throughout the financial year 2021. The South Asian country is that the largest offshoring destination for IT corporations across the world. The IT-BPM (information technology and Business process Management) sector has gradually grown in recent years, accounting for quite 30% of the worldwide outsourced BPM market. Within the financial year 2020, the IT sector's contribution to India's GDP was 7.7%. India's IT trade contributed around 7.7% to the country's GDP and is anticipated to

contribute 10% to India’s GDP by 2025.

Table 3: GDP of the IT Industry in India from Financial Year 2016-2021[1].

E= Estimates

Description	2016-17	2017-18	2018-19	2019-20	2020-21 (E)
GDP %	9.3%	7.9%	7.8%	7.7%	7.7%

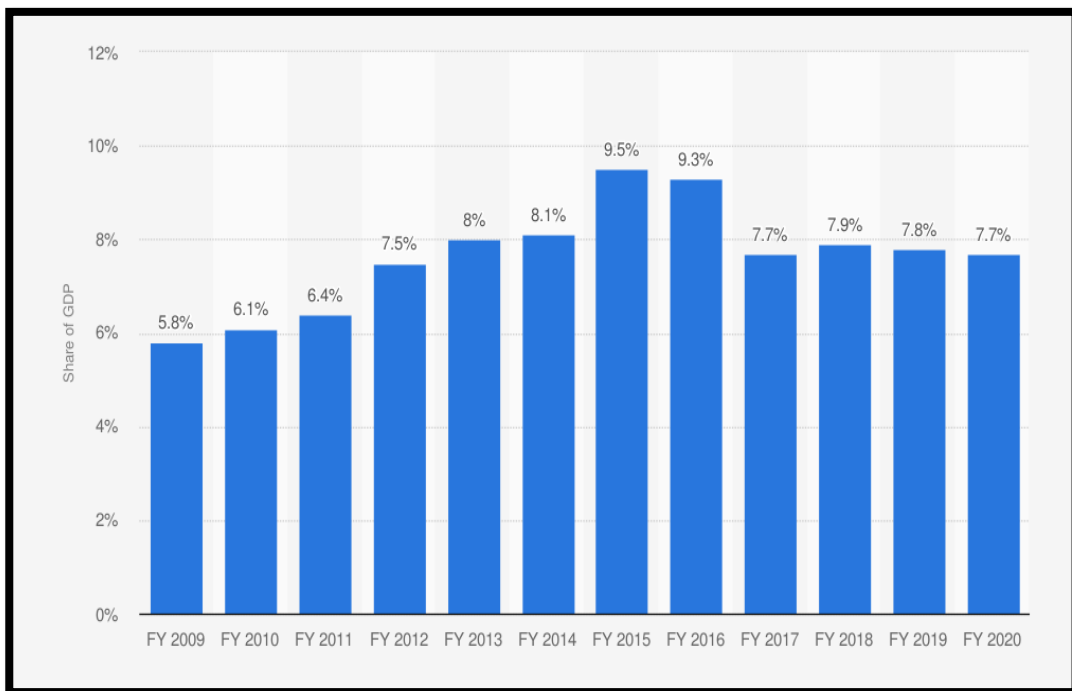


Figure 3: GDP of the IT Industry in India from Financial Year 2009-2019 (In billion US Dollars) [2].

The growth of the Indian economy has influenced the IT sector. Planning, development, execution and support of info systems are expressed to as information technology. IT sector accounts for 7.7% of the GDP of India. IT sector conjointly plays important role in India's exports that is accounting around 18%. India produces around 1.5L engineers every year, technically and socially. The majority of the engineers migrate to developed countries across the world and ready to be a part of an integral part of the great human resource. From the year 2000 onward, India has exaggerated its level to be one among the most important IT termini within the world. Here we will see that employment generation; revenue and GDP of IT industry is extremely impacted thanks to numerous lockdowns

throughout the Covid-19 pandemic.

EFFORTS FROM GOI AND STATE GOVERNMENTS:

The government of India and state governments has taken various initiatives to control the spread of the COVID-19. The health ministry has come up with multiple plans and in sync with the state governments for better control and immediate directions when there is a need. The government of India announced the lockdown for 21 days (till 14th April 2020) [3]. Only the essential services are permitted to operate, such as medicine, food, Agriculture based, hospital services, and an emergency like death. GOI advised the organizations to close and help the employees to be safe and also, urged them to provide the salary so that their survival can be ensured. Including the IT industry, employees from multiple sectors are advised or encouraged to work from home for their employers and customers. Central and state government has issued mandatory notice to the organization to ensure WFH facility, especially the IT organizations. Organizations may have to permit work from home to reduce their impact. However, there is no guarantee that all employees get good bandwidth" mentioned a respondent from a European-based IT service provider. "Employees are not genuine and honest when they are working from home. Productivity is less. In foreign countries, people are well prepared for WFH and their infrastructure is designed accordingly. But here in India, our readiness level is entirely different.

EFFECT OF LOCKDOWN ON IT SECTOR

The major limitation the IT industry is facing now is fall in the economy, as tons of corporations are forced to ask their employees to work from home keeping in account of the health concerns. Due to this, there's a huge loss of chance for several corporations that have international dealers. As an example, Apple Inc. is estimated to possess a minimum of a 10% fall in its shares due to the dearth of accessibility of iPhones within the market. The elements that are needed to create the iPhones are purported to come back from China, and it's facing a significant lockdown condition.

Infosys has purchasers across the planet and have their employees operating around the globe. Infosys employs concerning about 240,000 employees across its cluster corporations, unfold across forty-six countries. On average, concerning 30% of the workforce within the industry works overseas [4]. 70% Of the employees are in their early careers, between 1–5 years in their initial job. In most cases, they need to return to offices to figure as a result of they work on desktops, and therefore the clients for whom they work have strict security policies supported the character of the work. As COVID-19 created its inevitable advance and fears increased, most organizations within the IT Services sector started enabling employees to work from home, which suggests that for

an oversized range of individuals at the lower levels of the organizations, desktops required to shift to home and modify them with Wi-Fi adapters, power backup sources and broadband connections. An oversized range of employees themselves took their desktops home.

As the lockdown starts getting lifted, the main target shifted to 2 key areas within the short term. First was to step by step get employees back to work safely that meant working out protocols of a brand-new method of operating in offices and distinctive relevant employees to return to work given the business need, yet as their personal situation (where they come from, their family, health standing, etc.). During this phase, there was a requirement to create confidence and optimism amongst employees, and thence communication became crucial. Second, this can be additionally a key moment for the management to aspect at challenges and opportunities within the business within the short to medium term-distinctive areas for restructuring and price improvement, together with people efficiencies, watching pockets of recent business opportunities, and moving resources to those, and enhancing engagement with our clients [5].

The spread of this deadly virus has caused tons of technical conferences to induce canceled, that might be a great partnership opportunity for several corporations to expand their horizons. Some of the conferences were shifted to teleconferences, however this won't have a similar reach, and therefore the conference attendees won't be ready to have the networking chance as they would be attending the actual conference. As a result of the cancellation of those major technical conferences, there's associate degree estimated loss of US\$ one Billion.

The COVID-19 pandemic has severely disrupted economic activity, with the global gross domestic product (GDP) expected to shrink by over 3% in 2020, according to the International Monetary Fund (IMF 2020). If the estimate is realized, it will be the steepest slowdown since the Great Depression of the 1930s and much worse than the 2008–09 global financial crisis. Restrictions on international travel, strict social distancing norms and ceasing of industrial activity can have a fatal impact on sectors like travel, tourism, oil, metals including IT industry. Firms in several other sectors will have to rejig their business processes and practices to survive and thrive in the post-COVID-19 world [6].

CHALLENGES FOR INDIAN IT ORGANISATIONS DURING COVID-19

- IT organizations should have to vacate the floors; but, the rental and alternative necessary maintenance cost face to remains a similar.
- Various BCP (Business Continuity Plan strategies) can add up the cost to the IT organizations.
- IT organizations may have to purchase the portable computer/laptops for his or her

staff (non-Laptop users) to work from home in order that the operational price can increase.

- Organizations may have to bear the cost of the electronic devices like dongle, monthly web bills for the staff, which can additionally be adding a money burden to the business.
- Extended power failures result in availability problems and have an effect on employees' ability in delivering to customers. Not all staff has the flexibility to avail themselves of UPS at home.
- Internet bandwidth might not be up to mark because of the population that works from home, which can have an effect on the standard of the delivery.
- Employee's delivery efficiency might not be up to 100% because of varied reasons at the house workplace. Concentration could divert. So, generally organizations may have to cope with degraded performance.
- During work from home, the transport demand is additionally less. Because of this, the survival of the transport contractor and associated staff are in question. For the IT organization, it'll invite risk to retain the vendors and settle down their bills.
- Remote or video conferencing tools might not be possible to cope with the new deals as that sort of finalization needs in-person conferences in order that it is handled well, which can provide additional confidence to the customers.
- All staff doesn't seem to be honest. All staff doesn't seem to be capable of operating individually from remote locations. Because of this, productivity could go all the way down to some extent.
- Few organizations have a setup wherever assets are patched solely at the office workplace Networks. Because of this, the amount of non-compliance assets could increase, and this could result in security problems.
- There are few client deliveries that should be performed within the secured zone at the workplace location solely. Due to this, staff are forced to come back to the workplace, which can result in health problems to the staff.
- Work from home is very common in foreign countries. However, the Indian IT industry isn't totally able to deliver the business from home because of the shortage of assets and mentality.
- Customers might not be willing to sign the new deals which can have an effect on corporations forecasting and thus they'll not be able to meet revenue targets
- Teamwork idea could depart. Collaboration between team members might not be up to mark.

COLLABORATIVE ACTIONS NEEDED

IT service is almost similar to police and medical services. There will be a substantial

adverse impact if we do not deliver to our customers on time. Collaboration is needed by various stakeholders to manage the war situation because of COVID-19.

- IT organizations should make the necessary arrangements such as laptops and data cards, and allow employees to use their systems for delivery, ensure the security measures on the network, etc.
- IT/ITES companies should initiate cyber security and quality management measures to ensure global competitiveness [7].
- Companies should formulate strategies to develop and maintain a strong domestic market
- Companies should concentrate on creating a consistent and loyal workforce, which will enhance the cost efficiency and quality of their services
- Government should announce more IT-friendly policies in order to ensure the growth of the domestic market and to sustain growth in the global scenario.
- Government of India to advise the state governments to instruct the IT organizations to permit their employees to work from home (It is in place already). Most of the organizations are doing it currently.
- IT organizations to adhere to various advisories from GOI (Government of India) and support the nation during this crisis.
- Authorities who supply electricity power to ensure the uninterrupted supply so that the employees can support without any issues.
- Telecom providers to ensure the proper mobile network and good bandwidth so that the employees can work seamlessly.
- Indian IT organizations should work with multiple stakeholders such as other delivery centers at different countries, delivery centers within India where there is a less impact due to COVID-19 so that the other alternate strategies can be planned.
- Being a responsible employee, every IT employee to avail for the business. Though it is a cost addition, it is unavoidable to have UPS connection, multiple data connections so that the customers would not be affected [8].
- Good rapport between employees is a must. Team manager and employee relationship during this critical situation are vital. Employer and employee connect essential at this crucial point [9]. Indian IT organizations to take transparent feedback and suggestion from various levels such as employee, managers and executives. By using those inputs, they need to define the policies and procedures for better implementation.
- Ministry of IT to work with the telecom authorities to limit the data usage for mobile users and permit only for the required things. Song and video downloads, playing HD movies consume more data and hence such provisions to be disabled [10]. So that at least the people who wanted to use data for work from home from

IT and any other sector can be used.

- Alternate contact/Mobile number/address database should be readily available so that the manager or employer can contact the employees when there is a need [11].
- Businesses have to appoint developed expertise with specific expertise, with special skills that can easily master new capabilities, promote creativity, adapt to the new environment, and have the ability to learn, digitizing the recruitment process [12].
- Furthermore, efforts would be needed to attend to cross-cutting issues such as environmental management. Sustainable development should be based on the pursuit of the intertwined goals of accelerating the pace of economic growth, while also spreading the benefits widely among the population so as to make significant strides in poverty reduction [13].

CONCLUSION

The spread of Coronavirus and resulting lockdowns negatively impact varied industries and other people in multiple ways. However, this is often inescapable as we have to fight against the corona war. Several organizations are unable to work the business and deliver to their client. The majority of industries affected, together with IT, because of Corona. However, the IT business is consecrated to permit their staff to work from home and manage the business. This is often attainable due to its nature of the electronic format of delivery for his or her remote customers globally. To confirm the seamless delivery, uninterrupted service to the customers, retain the name and business with the Indian IT business, secure to the revenue for the Indian sub-continent, make sure the employment for the Indian IT techies, it's essential to own a cooperative effort from leader, employees, authorities like power, telecom, central and state governments.

This research paper presents such challenges within the context of the Indian information technology (IT) business that plays a big role in Indian economy. It's calculable that, by 2015, India's IT sector can generate revenues of US\$ one hundred thirty billion, which can produce a change within the entire economy. However, to realize this growth, the world must produce and maintain new models of business, world delivery, partnerships, etc. A whole-hearted effort from all the stakeholders is going to be required to confirm a property growth of India's IT business. This descriptive article elaborates the studies that covid-19 global pandemic extremely impacted information technology industry in India.

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