

# A PROJECT REPORT ON

Impact of Coronavirus on IT Sector

Submitted in a partial fulfillment of the requirement for the degree of

MASTER OF BUSINESS ADMINISTRATION

BY

**SONIYA BHALERAO**

**(19H61E0004)**

**JITTA MOUNIKA**

**(19H61E0026)**

UNDER THE ESTEEMED GUIDANCE OF

**Mrs. P. KALPANA**  
**ASSISTANT PROFESSOR**



**ANURAG GROUP OF INSTITUTIONS**  
**(Autonomous)**

(Accredited by NBA, NAAC Approved by AICTE, New Delhi)  
Venkatapur (V), Ghatkesar (M) Medchal (Dist.)- 500088  
2019-2021

## **Objectives**

To study the below

1. To study the Impact of Covid-19 on IT sector.
2. To know the changes of the IT sector adapted to this global pandemic.
3. To identify the future opportunities and changing dynamics of IT workspace.

## **Abstract**

Coronavirus is an ongoing global pandemic firstly reported in China in December 2019. The lockdowns introduced to prevent the spread of the Covid-19 have stopped economic activity across many sectors, with important repercussions for firms and households. The significant weaknesses the IT industry is facing now is due to the fall in the economy, as a lot of companies are forced to ask their employees to work from home (remotely) keeping in the account of the public health concerns. Due to this, there is a massive loss in opportunity for many companies who have international dealers. The spread of this deadly virus has caused a lot of tech conferences to get cancelled, which could have been a great partnership opportunity for many companies to expand their horizons. A few of the meetings were shifted to teleconferences, but this won't have the same reach, and the conference attendees will not be able to have the networking opportunity as they would be attending the actual conference. Due to the cancellation of these major tech conferences, there is an estimated loss in Billions of dollars in revenues.

## **Introduction**

The global economy is expected to shrink by 4.9% in 2020 – the steepest slowdown since the Great Depression of the 1930s as per IMF report.

Information Technology is changing the business landscape of every sector, right from the service sector to innovative products that are impacting our lives profoundly. These changes have been in motion for several years, affecting nearly all countries in the world. During the COVID-19 pandemic, the IT sector was forced to adopt the remote style of work environment keeping in mind the social distancing and containment measures. Though this was not new to this sector, the sheer numbers proved it to a challenge in moving the entire workforce to remote workstations. Due to the lockdowns imposed by various governments around the world, almost 97% of the IT workforce started working from home.

Through this paper, I wish to present how the IT sector adapted itself to the pandemic that has been ravaging human life which depends on social interaction as we know it was forced into isolation via strict containment zones created during the lockdown. Although there are many ways by which the IT companies stood out compared to any other industry, this paper focuses on the below key points which form the scope of our study and are in-line to our objectives to address the impact of the Covid 19 on the IT Sector and how the sector dynamically evolved in response.

## **Research Methodology**

This part of the research furnishes the research methodology used in this study. This study considers December 2019 to December 2020 as its study period. The review uses secondary data. The data is collected through various magazines, newspapers, and government websites for this study. This study focuses on descriptive research design.

## **Limitations**

Though I have tried to assess the impact of Covid 19 on IT sector during the year 2020, many experts still believe that full picture is yet to emerge as the pandemic is not over yet. The different vaccines that are available in many countries including India are being seen not only as a vaccine to this virus but also as a vaccine to the World Economy in general it will take time.

## Analysis

### **1. Challenges faced by the IT Sector and how it evolved during the pandemic**

India is the world's largest sourcing destination with the largest qualified talent pool of technical graduates in the world. The country has the low-cost advantage, being 5-6 times inexpensive than the US. India is the second-fastest digitizing economy among 17 leading economies in the world. India's IT industry contributed around 7.7% to country's GDP (Gross Domestic Product) and is expected to contribute 10% to India's GDP by 2025. As of FY20, the IT industry employed 4.3 million people. In FY20, the sector added 205,000 jobs, up from 185,000 jobs added in FY19. Total number of employees grew to 1.02 million cumulatively for four Indian IT majors (including TCS, Infosys, Wipro, HCL Tech) as on December 31, 2019. Indian IT industry employed 205,000 new hires and had 884,000 digitally skilled talents in 2019.

IT industry revenue was estimated at around US\$ 180 billion in FY20 at 7.7% growth y-o-y and is estimated that it will grow to US\$ 350 billion by 2025. The domestic revenue of the IT industry was estimated at US\$ 44 billion and export revenue was estimated at US\$ 147 billion in FY20.

The onset of Covid-19 forced governments around the world to impose lockdowns in order to curb the spread of this pandemic. India also went into complete lockdown by 25<sup>th</sup> March 2020 in accordance with the guidelines set up by WHO. Nearly all the services and factories were shut and people were forced to stay indoors unless absolutely necessary. Arrests across the states were made for violating norms of lockdown such as venturing out for no emergency, opening businesses and home quarantine violations.

Almost all the IT companies had their employees working from home in order to keep the businesses running and to keep the underlying infrastructure afloat that powers our Banks, Hospitals, Airline, Shipping & other transport industry and other critical industries. More than 90% of the employees found themselves working from home. This number was as high as 97% and 95% in companies like TCS and Infosys. All the companies rushed to provide their employees all the necessary equipment needed to make WFH successful on a war footing. Also the companies were reimbursing their employees for charges incurred like using high speed internet, electricity consumption and even for purchasing some of the necessary equipment.

Indian IT firms faced the full impact of business disruption in the US and Europe due to the Covid 19-induced lockdown in the quarter to June, as analysts expected companies to report 5-10 per cent drop in revenue due to clients cancelling or putting off discretionary spending on technology. TCS saw its revenue drop by 6%, Infosys by 5% and Tech Mahindra by 9% and Wipro by 7.5%.

Though many jobs were lost (this number was around 5%) and new projects were cancelled all was not in vain for the IT companies. For many who adapted to this change survived and this came as a blessing in disguise which is expected to pay its returns not only during this pandemic but also in the long run thereby impacting the entire future of how we view work. Below are few of the unseen benefits that came from the WFH model adopted by the companies.

- i. In the Initial days most of the people started remote work from the cities they were located in. This led to an average working IT professional in India is saving Rs 5,520 per month and 1.47 hours of travel time every day while working from home, according to a survey by leading co-working space provider Awfis. About 74% of the respondents are willing to work remotely, which could be home or a cafe near home as it leads to significant cost and time saving. Around 20% are saving Rs 5,000-10,000 per month while working from home while 19% are saving over Rs 10,000. And 40% of the respondents spend less than an hour commuting. The time saved translates to time worth 44 additional working days in a year means that for a company with 100 employees, 18 FTE days (full time equivalent roughly translates to 8 working hours in India) are added without any additional cost.

- ii. Then as the pandemic took over and the lockdowns continued with no sight in easing of restrictions, people started moving out of Tier-1 cities to their native places. This made life in small towns and cities look more attractive not just for retired folk but also for youngsters. In India, the march of homeward-bound migrant labourers has been well-documented, but even many urban IT professionals chose to escape to the comfort of their home towns rather than stay in their cramped flats in crowded cities with coronavirus cases steadily rising. And several of them are not returning.
- iii. The strict lockdowns and the WFH model of work also lead to the rise in internet consumption by almost 13%. As people not only started high speed internets for communicating with their loved ones, they also started paying for high speeds in order to seamlessly communicate with their office colleagues and carry on their uninterrupted. The consumption, DoT figures show, peaked on two days -- March 22 and March 27 -- when 312 PB of data was used. On March 26, 311 PB of data was consumed. The lockdown, announced on March 24, began on March 25. On March 22, India was put under a voluntary, one-day curfew. Since the first week, however, consumption has now stabilized around the 300PB mark. The data in one PB is equivalent to 500 billion pages of standard printed text. As per the current Speed Test results by Ookla, India's current broadband speed is an average of 36.17 mbps and mobile download speed is 9.67 mbps.
- iv. Once WFH model was adopted, companies are seeing gains on costs as well as efficiencies, and now, business leaders are certain that fewer people will be manning the cubicles spread across campuses. This led to companies saving heavily on maintaining office spaces, electricity charges due to less utilization of centralized A.Cs and high speed internets, transportation costs of employees working in shifts.
- v. The new WFH model also increased ratio of women employed in the workforce. Women who were not able to continue with their careers because of family commitments, they can continue devoting some time for work, pegging the total number of such possible beneficiaries in millions.
- vi. By seeing so many benefits of remote workplace, many industry experts believe that this will be norm of the future. Veteran banker Aditya Puri said – “Everybody who could work from home is already working from home. In fact, we are now examining whether even after coronavirus why these people should not work from home because it gives ample cost saving to us and (WFH) is a good benefit to the employee”.

## **2. How the employees started using online tools for virtual meetings and communicating with the loved ones.**

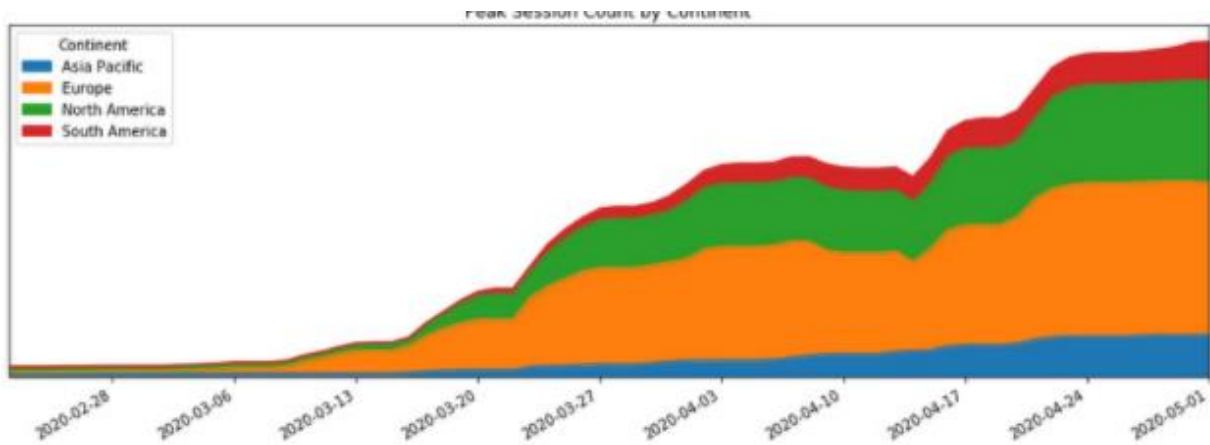
With the on-set of COVID-19 pandemic, IT sector employees started working from home and this forced them to let go of traditional methods of communicating with their colleagues, participating in client calls and attending in person live tech conferences and start using online tools to do this more than before.

### **i. Use of Zoom app**

When it comes to its growth rate, video conference company Zoom has lived up to its name. Use of the firm's software jumped 30-fold in April, as the coronavirus pandemic forced millions to work, learn and socialize remotely. At its peak, the firm counted more than 300 million daily participants in virtual meetings, while paying customers have more than tripled. The dramatic uptake has the potential to change the firm's path. Zoom said it expects sales as high as \$1.8bn (£1.4bn) this year - roughly double what it forecast in March.

### **ii. Use of various services provided by Google for Business communication**

As COVID-19 turned our world into a more physically distant one, many people began looking to online video conferencing to maintain social, educational, and workplace contact. As shown in the graph below, this shift has driven huge numbers of additional users to Google Meet.



### 3. How opportunities in emerging fields grew as many jobs were lost in existing domains.

Here, we will discuss how new jobs are being created by taking below two examples.

#### i. Increase in use of cloud technology

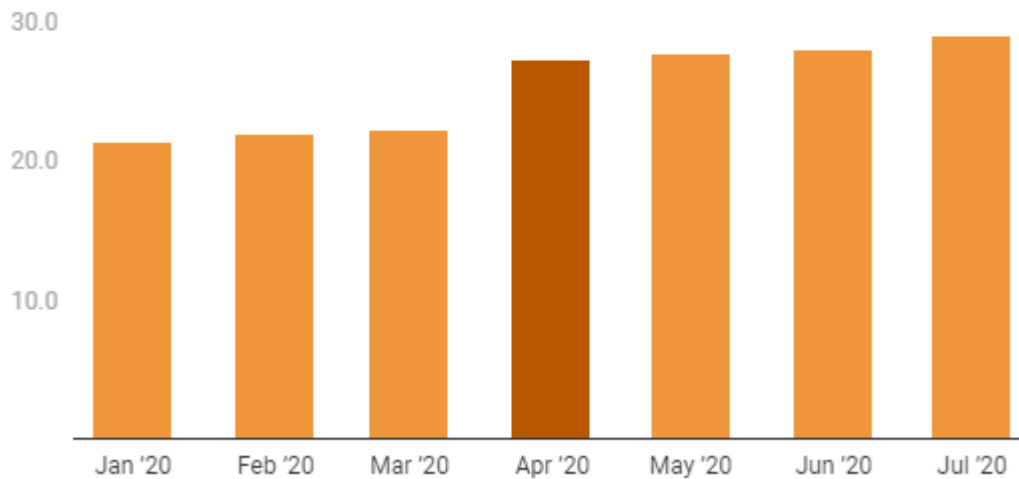
For the past ten years, the rise of software as a service (SaaS) has reshaped the enterprise-software industry. As SaaS matures, the customer's expectations around ease of use and ease of doing business will continue to rise. Platforms as a service (PaaS) from the Big Three cloud vendors (Amazon Web Services, Google Cloud, and Microsoft Azure) are gaining share and commoditizing software. And with financial markets reeling from the COVID-19 pandemic, investors are looking more closely at bottom-line health. Also with the increase in cloud technologies, the burden to maintain on-premise hardware and to have a BCP (Business continuity plan) is removed from the operating users to those maintaining the cloud. Although in this way, many of the jobs in current IT on-premise will be extinct but there will be huge surge in demand for cloud technologies. Covid-19 pandemic has accelerated this by at least 10fold as per industry experts.

#### ii. Increase in use of OTT platforms

When covid-19 shut down the box office, over-the-top (OTT) streaming platforms came to Bollywood's rescue. Industry and internet search data show viewership on OTT platforms indeed spiked in April, especially in smaller towns and cities. The early effect has not sustained for all platforms alike, but net viewership continues to be much higher than pre-pandemic months. Paid subscriptions on OTT video platforms grew to 29 million by July, a jump of 31% in just four months shows the latest estimate available with India Brand Equity Foundation. The increase was 5 million in April alone, the biggest for a single month. As of now, there are over 40 OTT platforms; Amazon Prime, Netflix & Hotstar are among the most subscribed and viewed. As the number of subscribers increases, the demand to provide seamless services will create more IT jobs to maintain these platforms.



Number of paid subscriptions on OTT video platforms in India (in million)



#### 4. How people started using online services for banking, education, e-commerce and the problems faced by them.

With the worldwide spread of COVID-19, the bank operations have been hampered. Borrowers and businesses have faced losses; there has been sluggish growth in sales, and decline in profits. On the other hand, this pandemic has been considered as an opportunity by some to launch digital offerings. Thus, banks have been effectively using the digital tool and providing alternatives to in-person banking and physical exchanges attractively. Analysts have estimated the condition of the digital banking market during the COVID-19 outbreak and have come to the following conclusions.

But as the number of online users grew, the load on the underlying IT infrastructure also grew. This led to outage in online services provided by many of the leading banks which in turn affected the bank's customers and many businesses dependent on online banking to run their daily operation. One such example is the outage suffered by HDFC for 2 days. On November 21 2020, HDFC Bank's entire payment stack had gone down due to a technical glitch. The unexplained outage of the Bank's data centers halted internet banking, UPI, IMPS, and ATM operations. Before that, the private bank had two outages, one in November 2018 and second one in December 2019. In order to serve as a warning to all other banks, RBI directed the HDFC bank to stop launches of any new business activity and not to add credit card customers following repeated outages in its electronic banking services. The regulator has also ordered the board of HDFC to examine lapses and fix any issues. On the same day, SBI's YONO app also faced outage and customers were not able to do any transactions.

RBI has appointed an external professional IT firm for carrying out a special audit of the entire IT infrastructure of the HDFC under Section 30 (1-B) of the Banking Regulation Act, 1949 ("the Act"), at the cost of the Bank under Section 30 (1-C) of the Act.

#### 5. How over reliance on some of the online tools caused wide spread panic when services offered by them were impacted.

During the first few months of the lockdowns, reports showed that digital media use tremendously increased as people spent more time at home due to coronavirus lockdowns. Such increases were especially prevalent for social media and messaging apps, but particularly remarkable was the unprecedented uptake in video conferencing apps and programs. An increase in voice calls (36%), social media (35%), and video calls (30%) and almost a quarter of people more frequently used email (24%), and just over one fifth played online games

more often (22%) was reported. Google also reported an increase in its services used surpassed nearly 25 times before the Covid 19 pandemic.

People are so over reliant for Google for its services, that almost one third of surface traffic is controlled by Google. But on Monday, the 14th of December 2020 all of Google services suddenly disappeared across the world users were unable to access mails kicked out of ongoing Google meet sessions. This crash was so big that it sent waves of panic across businesses in many parts of the world. Some of the biggest companies in the country use Google and this includes Uber, Airbnb, Pinterest, Netflix, Spotify, Twitter, Instacart and the list goes on. Employees not able to reach not just these services in terms of Gmail but in some cases get into the system at all. In the US, close to 10,000 students were given a day-off after they were not able to Google meet for their online classes. Also many of the hospitals were not able to check on the schedules of physicians and other medical staff couldn't contact their patients remotely for routine day-to-day checkups. As Google is the most widely used all in all the outage affected billions of people worldwide. Though Google's services were down only for two hours, the estimated losses were in billions in dollars for some companies.

This incident Google's outage can be seen as a stark reminder of our hyper-connectedness and how one company has become a bottleneck for so much of the world's processes. It's become part of a massive system and if it breaks that also has massive consequences. As just one company to become an unexpected choke point for global productivity is pretty unnerving. The solution to this is obvious; there are alternatives to Google for every service they provide. It really comes down to the individual person or business what it all comes down to is trading in some of that convenience that we've all gotten used to.

## Conclusions

We now understand how this Covid -19 pandemic has had a severe impact on everything and how governments all around the world are trying their best to tackle this on a war footing. In this paper, we have seen how the pandemic affected the IT Sector in particular by answering 5 key questions with examples and data collected from various sources. In each question, we have seen what challenges were faced and how the IT organizations and regulatory bodies stepped up their efforts to tackle the problems. We also have seen some hidden positive future trends emerge from the solutions and how a small change in our online individual preferences can have a dramatic impact not only our work but also on communicating with our friends and families.

## References

- [1] IMF 2020 Annual Report.
- [2] IMF The Promise of Fintech, Financial Inclusion in the Post COVID-19 Era
- [3] Delloite - Understanding the sector impact of COVID-19 - Technology Sector
- [4] Covid-19 and Its Impact on Indian Economy -Shubhi Agarwal, Archana Singh (2020), Int. J. of Trade and Commerce-IIARTC, Vol. 9, No. 1, pp. 72-79
- [5] <https://www.financialexpress.com/jobs/coronavirus-impact-on-it-industry-hiring-freeze-salary-cuts-loom-large-warns-mohandas-pai/1942111/>
- [6] <https://www.ibef.org/industry/indian-it-and-ites-industry-analysis-presentation>
- [7] <https://www.mckinsey.com/featured-insights/coronavirus-leading-through-the-crisis>
- [8] <https://www.mckinsey.com/business-functions/risk/our-insights/covid-19-implications-for-business>
- [9] <https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/the-next-software-disruption-how-vendors-must-adapt-to-a-new-era>
- [10] <https://www.marketdataforecast.com/blog/impacts-of-covid19-on-information-technology-industry>
- [11] <https://www.hindustantimes.com/india-news/india-s-internet-consumption-up-during-covid-19-lockdown-shows-data/story-ALcov1bP8uWYO9N2TbpPIK.html>
- [12] [https://www.business-standard.com/article/economy-policy/covid-19-lockdown-effect-every-second-indian-now-on-internet-in-cities-120050801805\\_1.html](https://www.business-standard.com/article/economy-policy/covid-19-lockdown-effect-every-second-indian-now-on-internet-in-cities-120050801805_1.html)

- [13] <https://timesofindia.indiatimes.com/india/why-some-professionals-are-quitting-the-big-city/articleshow/76357825.cms>
- [14] [https://www.business-standard.com/article/companies/covid-19-likely-to-impact-5-it-employees-in-india-take-away-200-000-jobs-120082701094\\_1.html](https://www.business-standard.com/article/companies/covid-19-likely-to-impact-5-it-employees-in-india-take-away-200-000-jobs-120082701094_1.html)
- [15] <https://economictimes.indiatimes.com/jobs/working-from-home-saves-rs-5520-per-month-for-an-average-professional-in-india/articleshow/77850500.cms?from=mdr>
- [16] [https://www.business-standard.com/article/current-affairs/covid-19-impact-more-people-in-services-sector-to-work-from-home-in-future-120042600500\\_1.html](https://www.business-standard.com/article/current-affairs/covid-19-impact-more-people-in-services-sector-to-work-from-home-in-future-120042600500_1.html)

