

The Recovery of Employment In the India IT Industry After the Outbreak of COVID-19



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Introduction

Decent work and economic growth have long been the focus of public attention. The UN's eighth Sustainable Development Goal is to promote inclusive and sustainable economic growth, employment and decent work for all. Since the introduction of this goal, countries around the world have made considerable efforts to promote employment and economic development. Guided by SDG8 and its targets, countries around the world promote equal and full employment for all groups and actively engage in technological upgrading and innovation to sustain economic growth.

However, the COVID-19 crisis that erupted in 2019 has hit the world hard. A large number of workers fell ill or went home to care for sick family members, and as a result, unemployment rates continued to rise. Many factories were forced to shut down and prices rose sharply. Developing countries were hit particularly hard by the crisis. The labor force in these countries is more substitutable, leading to a higher risk of unemployment. And once they lose their source of income, the poor, who lack savings, will struggle to survive the economic crisis.

This is why we are studying how the Indian IT industry should respond to the COVID-19 crisis. India is one of the most important developing countries in the world, with the second largest population in the world. Assistance and support to developing countries is a core issue under the framework of sustainable development. The IT industry occupies an important position in the Indian economy, creating a large number of jobs and significant national income for India. Helping to restore production and employment in India's IT industry will make a remarkable contribution to the recovery of employment and the economy of India and the world.

The COVID-19 crisis has had a severe impact on the Indian IT industry. IT companies have introduced emergency response programs, which, as we are about to show, have some advantages but also bring new problems. Based on this, this paper proposes some new solutions that will hopefully help the Indian IT industry recover employment and revenue. This paper also proposes further improvements to address the shortcomings that still exist in the new solutions.

Background

Overview of the Indian IT industry

1. The IT industry is one of the dominant industries of the Indian economy and contributes significantly to the national income of this country. In FY-2020, the IT industry output accounted for 7.7% of India's GDP (Sun, 2021). And this ratio has been the result of a slowdown in the Indian IT industry in recent years. It was even higher in previous years. The IT and BPM industry had more than 4.5 million workers in FY-2021 (India Brand Equity Foundation [IBEF], 2021), who worked for a number of Indian IT companies led by TCS and Infosys, getting paid well and greatly improving their living standards. IT industry is

so important to India that if its output were to plummet due to the epidemic, it would have a significant negative impact on the Indian economy and employment. That is also why we are particularly concerned about the impact of the COVID-19 on the Indian IT industry.

Indian IT outsourcing industry is very famous in the world. In 2019-2020, India held an overwhelming 55% market share of the global IT outsourcing industry (IBEF, 2021). When it comes to the IT outsourcing industry, India, the largest South Asian country, is always the first one you'll think of. However, when one country is responsible for running such a huge volume of economic business, problems arise: when India is severely affected by the COVID-19 and a great many workers fall ill and are quarantined, the global IT outsourcing industry is severely damaged. As we'll see later, multinational companies were left scrambling in the chaos and the entire IT industry was forced to adapt to the dramatic changes in India caused by the COVID-19 crisis.

2. One characteristic of the Indian IT industry is that exports account for a major part. In FY-2021, the value of the Indian IT-BPM industry was expected to reach \$194 billion, and the value of foreign exports was expected to be \$150 billion, accounting for 77% (IBEF, 2021). India is the world hub of IT outsourcing industry, mainly exporting to the United States and Europe, with partners such as Standard Chartered Bank, UBS, etc.
3. It is worth noting that although the Indian IT industry is growing so prosperously, the lack of skilled workers is a serious problem. Compared with those in the U.S. and Europe, IT workers in India are mainly cheap laborers, who work in low-skilled areas and do not possess core skills that require new technologies. According to a 2019 research of Indian IT graduates, only 9.9 percent were capable of writing code that was completely correct or rarely wrong, compared to 34.1 percent in the United States (Sun, 2021). In addition, only 2.5 percent of Indian engineers had skills in the field of artificial intelligence, 4.5 percent were proficient in data engineering and 5.3 percent understood wireless technology (Sun, 2021). All these figures illustrated the lack of skilled workers in Indian IT industry.

The importance of this feature is that when the COVID-19 epidemic causes many Indian IT workers to fall ill, get quarantined, and have to leave their jobs to take care of family, companies are prone to prefer workers from other countries to replace Indian workers, such as those from the Philippines. When you don't master core technologies, it's easy to find other cheap labor with the same level of skills to replace you.

Impact of COVID-19 on employment in the Indian IT industry

1. After the first round of the COVID-19 pandemic subsided in 2020, India experienced a second round of outbreaks in late March 2021. After entering April, India reported more than 300,000 new confirmed cases per day (Ministry of Health and Family Welfare of India [MoHFW], 2021), and this figure was still grossly underestimated. People fell ill,

quarantined, or cared for sick family members. In May 2021, Standard Chartered Bank said 800 of its 20,000 employees in India were infected, and UBS said up to 25 percent of one of its teams in India was absent from work (Jiang, 2021). In fact, workers in all industries have seen their attendance rates reduced by the COVID-19 outbreak.

2. To cushion the negative impact of COVID-19, companies began laying off employees and shifting business orders abroad. Like in any other industry, companies in the Indian IT industry laid off employees or at least scaled back their original hiring plans. Continuing to hire in the Indian labor market no longer seems to be a wise option: the growing epidemic has reduced the domestic labor supply, and as a result, Indian labor is no longer cheap enough to offer a price advantage. So who is going to make up for the lack of workers and complete the huge workload?

Companies are looking to foreign countries where the epidemic is relatively mild, such as the Philippines, Poland, and China, and trying to get a more stable and cheaper supply of labor there. As mentioned earlier, Indian IT industry workers are concentrated in areas with low-level technical skills and therefore are highly replaceable. This has resulted in a flow of IT outsourcing business from India to other countries and a deterioration of employment in India.

Previous Solutions

1. Working from home is the most common solution adopted by Indian IT companies today. As the number of absent employees increases, it is no longer a wise option to continue paying high rent for an office. Infosys, the leading Indian software exporter, made a statement in July 2020 that it had enabled 93% of its Indian employees to telecommute from home, with as many as 35,000 assets transferred to employees' homes (Shankar, 2020), including desktops, WiFi adapters and backup power supplies.

The shift from a centralized office to a decentralized home office is certainly a significant process. Unlike service industries such as restaurants and haircuts, this process of transformation is feasible in the IT industry: employees can cope with data and write code from home, as long as provided with the necessary equipment. For those low-income workers who do not have their own laptops, Indian IT companies allow them to take their desktops from office to home. In addition, if needed, the company will provide employees with backup power, in case there are power outages in some poor areas that slow down the completion of work.

2. In an effort to improve the attendance of workers, IT companies have begun providing funds and resources to help their employees fight the COVID-19. Specific initiatives include providing employees with access to vaccinations and supplies to fight the disease. Patil, director of IBM in India, said the company was working to vaccinate more than 100,000 employees in India against COVID-19 (Yi, 2021). Marc Benioff, executive officer of Salesforce, said the company had shipped oxygen machines and other supplies to India

in May 2021 to help local employees (Yi, 2021). As we can see, the company and its employees share a common interest in the fight against the COVID-19 pandemic.

Shortcomings of current solutions

1. Working from home has led to threats to data security that can be fatal to the IT outsourcing industry. When working in the office, employees use desktops from the company for data processing and use IP addresses at the office for data transfer. Companies always make great efforts to secure their data, such as using data encryption technology. But when employees return to their home offices and use home Wi-Fi, it is much easier for hackers to steal data. Meanwhile, data security is of great importance for Indian companies in the IT outsourcing industry because they handle a huge amount of business data for financial companies in Europe and the U.S. Any small data breach can cause immeasurably large financial losses.
2. Working from home has led to a considerable reduction in productivity. Like companies in other industries, Indian IT companies are facing the dilemma of reduced employee productivity due to working from home. There are two main reasons for this.

First, each employee has less face-to-face communication with colleagues. When you encounter a problem at work, you can no longer get a quick answer by asking the colleagues in the seat next to you. You need to send them a message through social networks, and then pray that they check the phone early and reply as soon as possible. In fact, even if your colleagues are able to check the message in time, it doesn't mean the problem will be solved smoothly: you may not be able to put the question into words clearly, and they may not be able to formulate the answer in such a way that you could understand correctly. Sometimes you have to ask the question again. The cost of communication has increased dramatically, making effective work time go down.

Second, managers' supervision of their subordinates has weakened. Unlike in the office where everyone is gathered, managers no longer see what workers are doing. Employees are well aware of this, too. The consequence is that the distinction between work time and leisure time is blurred. Employees are working while eating, doing chores or taking care of their children. There are numerous factors that can distract workers, and it often takes long to redirect their attention from these things to the interrupted work.

3. The provision of vaccines and supplies to employees has added additional financial burdens such as transportation costs for the IT companies and exposed the lack of government support. Supplies such as ventilators, protective clothing, and masks can incur high transportation costs when shipped to India from the United States, where supplies are relatively plentiful. During the COVID-19 pandemic, shipping costs were very high due to ship worker absences and dock closures. This is a heavy burden for companies. The high costs could lead to a shortage of supplies and slow down the process of restoring employment to the Indian workforce. In fact, it is the Indian government, not

multinational companies, that should do the most to improve the situation of Indian workers. The government should take more responsibility, including financial, material and policy support.

Proposal

1. The IT companies should use collaboration tools such as Zoom/Skype to improve the productivity of their employees working from home.

This will facilitate increased communication between co-workers who work from home and enhance supervision of subordinates by managers. FINRA issued a guide in 2020 to combat COVID-19, stating that managers at firms should maintain monitoring of employees who work from home (The Financial Industry Regulatory Authority [FINRA], 2020). American financial enterprises commonly use software such as Zoom for online meetings and communication.

This is a lesson that can be learned for India. Given that Indian IT companies allow most employees to work from home, they can encourage employees to use software such as Zoom to communicate during work hours. Managers in companies can also set up regular work hours each day during which employees are asked to turn on their cameras so that managers can monitor them. Proper use of software such as Zoom can certainly improve the productivity of employees working from home.

2. The government should provide funds for basic skills training for low-skilled workers in the Indian IT industry.

As mentioned earlier, the Indian IT industry is dominated by cheap, low-skilled workers, most of whom are not qualified to write correct code. This shortcoming is fatal because India is not the only country with a cheap, low-skilled workforce. Moreover, the impact of COVID-19 forced a large number of infected Indian workers to temporarily withdraw from the labor market, and the gap in labor supply relative to labor demand led to an increase in the price of Indian labor. Its original price advantage is no longer obvious. Since this is the case, what is the reason for the major multinational companies not to go to the labor markets of other countries, such as the Philippines and Poland, to look for the same low-skilled but cheaper labor?

To keep business orders in India rather than sit back and watch them flow to other countries, it is essential to improve the skill level of those working in the Indian IT industry. When there is a decrease in quantity, it will be important to improve the quality. The government should provide funds for vocational training of IT industry workers. This will improve their competitiveness in the international labor market and reduce the order outflow from the IT industry under COVID-19.

In fact, the experience from other industries in India is worthy of the IT industry to learn from. Take the textile industry as an example. Back in 2010, India launched a textile skills development program. As of April 2010, India's National Skill Development Corporation (NSDC) approved three projects with a total investment of 450 million rupees for the skill training of one million textile workers. During FY2020-11 to 2017-28, a total of 1.14 million textile workers were trained, of which 0.84 million found jobs after the program (India Education Diary, 2021).

There are many similar skills training programs in India. The question we are interested in is: how effective are these training programs? According to an NSDC survey in 2014, 77% of workers received career advancement after participating in skills training, more than 80% of employed people believed that skills training programs helped improve their job competencies, and more than 75% of employers believed that employees who had received NSDC skills training performed better and were better equipped for the industry (United Nations Development Programme [UNDP], 2021). Centum Work Skills India (CWSI), one of NSDC's largest training partners, pointed out in its report that it trained more than 167,000 people in 2014-2015, resulting in 70 percent of trainees being offered jobs (UNDP, 2021). It is clear from the data that skills training has a significant positive effect on improving the competitiveness of workers in the labor market.

In addition, it is important to note that this type of basic skills training will not cost the government an excessive amount of money. This is because it's always easier to raise the quality of workers with lower-level skills than those with higher-level skills. Just imagine: it is definitely easier to raise a student's grade from 30 to 40 than from 90 to 100. The same holds true for improving the ability of workers.

The target 8.6 of SDG8 is to reduce the proportion of youth not in employment, education or training. Through the previous discussion, it is obvious that funding for basic skills training can help achieve this target.

3. The government should provide subsidies to encourage IT companies to hire more female employees.

This initiative will increase female employment in India, which in turn will improve the overall employment level across India. The example from Japan can provide strong support for this proposition. In a statement released on July 30, 2019, the Japanese Ministry of Internal Affairs and Communications noted that the creation of new heights in female employment had brought about a decline in the unemployment rate in Japan. As the number of women employed in Japan exceeded 30 million for the first time, it led to a 0.1 percentage point drop in Japan's complete unemployment rate to 2.3 percent (Japan's Ministry of Internal Affairs and Communications, 2021). It was pointed out that the increase in female workers was the main reason for the decline in Japan's unemployment rate (Japan's Ministry of Health, Labour and Welfare, 2021).

Increasing the employment of women in the Indian IT industry will help promote gender equality and increase the diversity of employees in companies. A more balanced gender ratio of employees will bring a more harmonious working environment, thus improving the efficiency of all employees. Tata Consultancy (TCS), India's largest IT outsourcing company, said in a report published on September 30th, 2021, that the percentage of female employees in the company was 36.2% (Business Wire, 2021). This indicates that there is still room for further improvement in female employment in the Indian IT industry.

In addition, evidence from China shows that women are not at a disadvantage in the IT industry. A study by the Sichuan Institute of Social Science and Economics in China in 2020 pointed out that the IT service industry was among the dominant industries for female workers, with industry dominance degrees $F=1.03$, for legal entities, and $F=1.16$, for self-employed households (Liu, Zhang, Zhou, & Zhu, 2017). The industry dominance degrees were all marginally greater than 1, indicating that women had a slight advantage in the IT industry. Even if the advantage was not significant, it was by no means a disadvantage. This can be a worthwhile reference for India. As the two most populous developing countries in the world, China and India certainly have some similarities in labor quality. In the IT industry, the workforce in both countries is dominated by low-skilled labor. The data from China will serve well as a theoretical support for future reforms in India. All in all, it is perfectly reasonable to increase the employment rate of women in the IT industry.

The target 8.5 of SDG8 is to achieve full employment and decent work for all women and men. Based on the discussion above, there is no doubt that encouraging the hiring of female employees can help achieve this target.

Shortcomings of Personal Proposal

1. Zoom has serious data security concerns and may be at risk of compromising important data. In March 2020, the FBI issued a warning that several of Zoom's meetings had been illegally hacked and that important information such as corporate meeting footage and company business data had been stolen (Federal Bureau of Investigation [FBI], 2020). Soon after, companies such as NASA, SpaceX, and Google had explicitly banned employees from using Zoom. Data breaches are particularly harmful to companies in the IT industry, which handle large amounts of data every day.
2. India's financial support for the IT industry won't be as strong as expected. The Indian government has been financially strained by increased public health spending due to the impact of the fight against COVID-19. This is reflected in India's escalating debt ratio. According to the IMF, India's debt-to-GDP ratio rose from 74.1% in FY2019-20 to 90.7% in FY2021-22 (International Monetary Fund [IMF], 2021). With a tight budget, the Indian government has chosen to prioritize the allocation of fiscal funds to hard-hit industries such as tourism, hotels and restaurants over the IT sector. In May 2020, India announced a 20 trillion rupees (\$267 billion) stimulus package to revive economy and help small and

medium enterprises in tourism, hotels, restaurants and other industries (Bhaskar, 2020). Therefore, the Indian IT industry may face the dilemma of not receiving strong support from government funds.

Other solutions for further improvement

1. Since financial support is not easily available, Indian IT companies need to earmark their own funds from cash deposits in the bank for recruiting temporary workers from the Indian market. To reduce costs, companies can increase the recruitment of college students. Since the Indian IT industry mainly uses low-level technology, college students can be employed with simple induction training, which will not cost the company too much money. This will make up for the shortage of labor force and increase the employment rate in India. What's more, it can directly help to achieve target 8.5 of SDG8, which calls for reducing the proportion of youth not in employment, education or training.

Conclusion

The IT industry occupies an important place in the Indian economy. However, the COVID-19 outbreak in India has dealt a heavy blow to employment in the Indian IT industry. To cope with the negative impact, Indian IT companies are generally adopting work-from-home solutions. This has alleviated some of the crisis, but it has also created problems with data security being threatened and employee productivity declining.

Based on this, several solutions are proposed. The first is to use software such as Zoom/Skype to improve the efficiency of employees working from home. The second is government funding to provide basic skills training for low-skilled workers in the Indian IT industry. The third is for the government to give companies subsidies to recruit female employees to increase female employment. In addition, Indian IT companies can earmark funds from their cash deposits in the bank for recruiting temporary workers from the Indian labor market, especially for college students.

Since the outbreak of the COVID-19 pandemic, India's situation has gained the attention of the world. At a time when countries are becoming increasingly connected, helping the people of India is not only for their sake, but also for the sake of each country itself. In the face of this sudden disaster and chaos, people around the world should stand together and join hands to combat the disease.

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