The Effect of COVID-19 Pandemic on Different Industries

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Abstract. The emergence of Covid-19 has dramatically impacted many people's lives in different aspects. Among them, economic development has been hit enormously. In order to prevent the continued spread of the disease, some people choose to self-isolate, and the government has announced tons of public health restrictions, which shuttered a large number of businesses. Many factories and enterprises fail one after another, and millions of employees are forced to lose their work. However, every coin has two sides. From another point of view, the opportunities brought by the epidemic cannot be ignored. Due to the demand to avoid infection, many online internet industries have been developing rapidly to satisfy the increasing need under this circumstance. This article aims to provide a report on the negative and positive impact of COVID-19 on the different industries short run and also forecast the effect and development in the long run [1].

Keywords: Covid-19, coronavirus, economic impact, future development.

1. Introduction

Since Covid-19 broke out in Wuhan in December 2019, it has lasted more than two years. According to the data from Worldometer, the unexpected global outbreak of the COVID-19 pandemic has spread worldwide, causing 595,001,717 confirmed cases, 6,454,214 dead, and affecting 228 countries until August 14, 2022. It has brought a significant influence on people's daily life and working environment. Due to the highly contagious and dangerous nature of the coronavirus, governments have to adopt quarantine and even lockdown policies to reduce the number of infections.

While causing harm to people's lives and health, there is no doubt that the epidemic has brought a solid short-term blow to the world economy. The Global Economic Prospects report called it the worst global recession since World War II. Due to social distancing policies in various countries, factories are facing shutdowns. The closure of borders to prevent the spread of the disease has also led to the suspension of international trade. The once crowded streets became empty. It affects almost 90 percent of the world economy and torments economic growth. The industries that rely on face-to-face services like Aviation, Tourism, and Restaurants, have been primarily banned and facing a crushing blow.

From another perspective, the emergence of the epidemic has also brought opportunities for the development of the Internet and Technology, which cannot be ignored. The company needs online meetings in order to operate normally; the hospital has opened online diagnosis and treatment. People have a better understanding of emerging channels, and many problems have been solved in these particular periods. The application of artificial intelligence has also received strong support, satisfying the massive demand of the market. Unmanned distribution, unmanned retail, and other industries are rising strongly. Various door-to-door services and distribution platforms are extensively recognized by people, and these advances will also be the future development trend.

Now, in the year 2022, although there is a sign of recovery in every aspect, the pandemic has not entirely ended yet. The global epidemic cannot be fought synchronously, the epidemic prevention measures are uneven, and due to people's lack of understanding of various variant viruses, researchers from all over the world cannot fully control the prevention and control of new strains and treatment. Therefore, countries still need to make trade-offs between epidemic prevention and economic development.

2. Negative impact of covid-19 in different industries

2.1 Tourism

The emergence of COVID-19 has dealt a massive blow to the tourism industry. The decrease in the number of tourists not only hurt tourism itself but also caused many chain reactions, such as the increase in the unemployment rate and the blow to the national economy [2]. According to the report of UNWTO, on April 20, 2020, 100% of the worldwide destinations have introduced travel restrictions. On November 1, 2020, 27 percent of all destinations worldwide kept their borders completely closed for international tourism, which caused a 74 percent decline in the number of international tourist arrivals compared to the year 2019, resulting in an over two trillion-dollar loss in global GDP. The situation could even plunge to the level of the 1990s.

In 2022, many countries have eased travel restrictions to some extent amid the gradual easing of COVID-19. The number of international tourists has already tripled from the same period in 2021. Although it is still not as good as before, people can finally see the signs of recovery. It is really hard for tourism to return to its previous peak anytime soon. Not just the disease itself but also the restriction and obstacle that still exists when it comes to traveling in the current period would make it more difficult for tourism to recover. However, there are more than 144 countries have adopted fiscal and monetary policies, followed by procedures to support jobs and training, which have been implemented by 100 countries [3]. With the help of governments, the recovery of the industry is optimistic. The number of international travelers has increased from -66 percent in January 2022 compared to the same period in 2019 to -56% in March 2022 [4]. Tourism is expected to gradually return to normal by 2024, with countries doing their best to support it.

2.2 Aviation

In the aviation sector, many countries have opted to stop public transport and other non-essential means of transportation due to government restrictions and fears of the virus, leading to a decline in mobility indices to unprecedented levels [5].

Taking China as an example, the government issued the "Five Ones" policy on March 26, 2020, which can only reserve one route from each airline in China to another country; each route cannot operate more than one flight per week; each foreign airline to China can only retain one route, and cannot operate it more than one route per week. At the same time, the load factor is required not to be higher than 75 percent. This is undoubtedly a heavy blow to the aviation industry, and it is also challenging to find a ticket for those who have worked in foreign countries, studied abroad, and want to return to their home countries. Within a few months, 23 airlines declared to close or went bankrupt. These include South Africa Airways, which is the largest airline in South Africa, Italy's second-largest airline, Air Italy, and more. According to an ICAO report published by UN News, Covid-19 caused $370 billion in financial losses to airlines in early 2021. The total number of travelers is down 92 percent from 2019, with international travel down 98 percent. The slight rebound that occurred in April 2020 was broken by a second wave of the Covid-19 outbreak that emerged in September.

Fortunately, in 2022, various industries have gradually recovered. Industry revenue can already reach 93.3% in 2019. But at the same time, the cost of spaceflight has also increased by 44% compared with 2021. “Airlines are resilient. People are flying in ever greater numbers. And cargo is performing well against a backdrop of growing economic uncertainty. Losses will be cut to $9.7 billion this year, and profitability is on the horizon for 2023. It is a time for optimism, even if there are still challenges on costs, particularly fuel, and some lingering restrictions in a few key markets,” said Willie Walsh, IATA’s Director General.

2.3 Restaurant

Covid-19 has had a significant impact on the restaurant industry; although the severity of the outbreak varies, almost every local government has issued an order to strictly prohibit restaurant dining from maintaining social distancing; these measures are very effective in the aspect of reducing people's interaction, thereby reducing the spread of the virus, but also making the global catering industry market demand shrink sharply, posing a significant threat to the survival of the restaurant industry [6]. The long-term closure has led to a backlog of rotten raw materials, store rent, the basic salary of employees, management costs, and other losses, making the operators lose a lot.

In April 2020, about 60 percent of U.S. restaurants were in financial trouble, and the restaurant industry's average global earnings plummeted by 63 percent compared to the same period last year. The flow of catering passengers in China fell by 91.25 percent compared with the same period the previous year. Many restaurant companies have started takeaway services to improve the situation, which is also an advantage of fast-food companies in this circumstance. However, it is not so easy for full-service restaurants, such as Haidilao, which is a highly service-oriented hot pot restaurant, and food delivery loses the process of customers coming to the restaurant to enjoy the service. Hence, it suffers a significant financial blow. In this case, obtaining a new business model becomes an essential part of this industry.

In addition to some fast-food companies that have their advantages, many full-service restaurants have begun to cooperate with e-commerce platforms and started an online and offline marketing models. Haidilao launched the self-heating hot pot that can be bought in supermarkets, thus opening up the retail e-commerce market and beginning the reform of the operating model. So far, the restaurant industry is still trying to recover the losses caused by the last two years, and the year 2022 is seen as a turning point unless the epidemic breaks out again. Otherwise, the catering industry sales will develop in a very positive direction.

3. Positive impact of covid-19 in different industries

Under the influence of the epidemic, some industries are facing severe challenges, while others are ushering in new opportunities for development. The Internet’s new economy industry has developed rapidly under people's needs.

3.1 Medical Care

The first is medical care; in the epidemic environment, medical resources are seriously short, and hospitals have become the hardest hit areas of virus infection. The application of virtual medical care has effectively reduced the pressure on hospitals, alleviated the imbalance of medical resources, effectively reduced the contact between doctors and patients, eliminated the risk of cross-infection, and also ensured the safety of medical staff [7]. At the same time, waiting times are reduced, and medical efficiency is also improved [8]. In just a few weeks after the outbreak, the frequency of online medical use has increased 78 times.

By 2021, telemedicine usage has stabilized 38 times higher than before Covid-19 [9]. The investment in virtual health also continues to rise. From Rock Health’s H1 2021 digital health funding report, it can be seen that the total risk investment in the telemedicine field in the first half of 2021 was $14.7 billion, exceeding the investment in the whole year of 2020, $14.6 billion. This growth reflects the promise of telemedicine as a strong option for healthcare and also demonstrates a new path for future healthcare industry development.

3.2 Online Software

The use of a wide variety of online software increased tremendously during the year. In the face of unprecedented growth in people's demand for remote work, online collaborative office software has become more of a vision. The software ZOOM, for example, had an average of 10 million meeting participants per day before covid-19 and had grown to 350 million in December 2020. The company's revenue also quadrupled compared to 2019. For schools, distance learning is no longer an option but a necessity [10]. Not only has the use of conferencing software increased dramatically, but the frequency of use of tools such as Gmail, Google Classroom, and Google drive has also increased to a certain extent, which can successfully serve as an alternative to face-to-face courses [11].

3.3 Artificial Intelligence

In order to avoid close contact between people and infection and improve epidemic prevention efficiency, the application of artificial intelligence has been dramatically improved, and it has also played a significant role. Especially in scenarios such as somatosensory detection, distribution, food delivery, disinfection, and sterilization, robots can effectively replace workers and reduce unnecessary risks. And in addition to the direct fight against the virus, artificial intelligence technology uses the characteristics of big data to build models to rehearse the spread of the virus, population flow, etc., and to deploy the problems that may come in advance. Make the entire process more efficient and accurate. Investment in AI increased by 12% from 2018 to 2019, while during the pandemic, that is, 2019-2020, global investment in AI increased by 40%. The emergence of the pandemic has undoubtedly accelerated the growth trend of the artificial intelligence industry.

4. Forecasting the future

Although enterprises will face bankruptcy and other issues in the short term, in the long run, the impact of these service industries, such as catering, tourism, aviation, entertainment, and so on, is not too significant. Even if there are losses for companies, they will not be able to shake the fundamentals of the service industry. With the easing of the epidemic, the demand in these industries will still be re-released or even reach a new peak.

4.1 Tourism and Aviation

In the next two years, the tourism industry is expected to return to its previous level, especially in the European region. With the control of Covid-19, the travel restrictions will disappear, which will help with the recovery of tourism and aviation. At the same time, people need to pay attention to the possible impact of the ups and downs of the economic environment. The Russian Federation and Ukraine's military offensive have exacerbated the inflation, which is already affected by COVID-19, raising the price of oil and increasing the cost of these two industries, which are all potential dangers that could affect the recovery in the future. In this case, people may be leaning more toward domestic travel since it will cost less money, less time, and less trouble. Therefore, the experts predicted that there would be a faster recovery for domestic tourism compared to international tourism, which, in addition, will also help the growth of aviation.

4.2 Restaurant

In the restaurant industry, the online takeaway market continues to grow, which not only provides convenience for people's lives but also brings security to safety in the epidemic environment. As the nature of human beings, they always have the need to socialize, and eating out is already an eating habit that cannot be removed. In Brazil, eating out even accounts for about one-third of household expenditure (32.8%) [12].

After the pandemic, the restaurant industry will gradually return to its previous level. At the same time, the takeaway industry has also stood for a large part of the restaurant industry. It has also become the primary source of restaurant revenue during the epidemic. Therefore, in the future, most restaurants will maintain the three choices of dine-in, takeaway, and takeout, so as to adjust their business models according to market changes [13]. The World Health Organization has proposed to strengthen hygiene measures to eliminate or reduce the risk of viruses contaminating food surfaces and food packaging materials, and restaurants to ensure that they can comply with hygiene regulations. This is also a necessary path for the future recovery of the catering industry.

4.3 Online Software

The development of remote office software will continue to trend upwards, and there will be more diverse options to cater to the different needs of enterprises. Under this condition, the correct use of office software can save office space for enterprises and reduce maintenance costs. People can also enlarge the talent pool selection range. The emergence of the epidemic has only accelerated the speed at which remote office software has entered everyone's life, and the utilization rate has been dramatically improved in a short period of time. In the future, as the epidemic is gradually under control, the use rate may decline to a certain extent. Still, it does not prevent it from becoming a major trend in social development. With the development of technique, holographic meetings will come to people's view eventually. As a result, the pandemic has opened up unprecedented business opportunities for application design and improvement.

4.4 Artificial Intelligence

Artificial intelligence has played a massive role during the epidemic and penetrated into many industries. In the future, artificial intelligence will also be involved in everywhere in life; it can be said that it is an extremely important technique because future development will depend on it to a large extent; it can also be said that it is unremarkable because intelligent technology is quietly becoming invisible and combining with all things.

5. Conclusion

This article discussed both the positive and negative impacts of Covid-19. In the tourism industry, aviation industry, restaurant industry, etc., causing significant losses in a short period, which has never happened before. At the same time, it has also accelerated the development of artificial intelligence, robotics, and other emerging economies and digital economy industries, and remote work has promoted the rise of online office software. In the long run, the damage caused by the pandemic will gradually be wiped out in the future, and various industries will slowly get back on track. Initiatives that are well known and used because of the epidemic will continue to develop in the future. Digital living will be the trend of the future.

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