

The Impact of the COVID-19 Pandemic on Sectors: A Comprehensive Review

Belal Dahiam Saif Ghaleb*

Department of Social Sciences, Human Resources Management and Industrial Relations, Sakarya University, Sakarya, Turkey

ABSTRACT

The COVID-19 pandemic had a far-reaching impact on various industries across the globe. This article presents an in-depth analysis of how different sectors were affected by the pandemic. We explore the challenges and opportunities faced by sectors, the changes in consumer behavior, and the innovative solutions that emerged during these trying times. By examining the rates of disruption and recovery, we gain insights into the path towards a more resilient and adaptive future.

Keywords: COVID-19; Pandemic; Sectors; Sector impacts; Industries effects

INTRODUCTION

The COVID-19 pandemic, caused by the novel coronavirus SARS-CoV-2, emerged as a global health crisis and rapidly evolved into an economic and social catastrophe. As the virus spread across continents, governments and health authorities implemented stringent measures such as lockdowns, travel restrictions, and social distancing protocols to curb its transmission. These unprecedented actions, while essential for public health, led to significant consequences for industries worldwide. The pandemic's impact on industries was multifaceted, disrupting supply chains, production, and consumer demand. While some sectors struggled to survive, others experienced a surge in demand, driven by changes in consumer behavior and the adoption of digital technologies. As the pandemic unfolded, industries had to innovate, adapt, and reevaluate their strategies to navigate through uncharted waters.

In this article, we delve into the impact of the COVID-19 pandemic on various industries, shedding light on the challenges they faced and

the strategies they employed to endure and recover. By analyzing each sector's performance, we aim to gain valuable insights into the resilience of industries and their potential for future growth and transformation. Let's explore how the pandemic affected specific industries and the key lessons learned from this unparalleled global event.

LITERATURE REVIEW

Industries affected by the COVID-19 pandemic

Effects on export and import of services: Before the COVID-19 epidemic, economists had predicted that the USA and other developed countries would experience recession for 2020 [1]. However, global trade was adversely affected due to the addition of the COVID-19 epidemic and the prohibition of entry and exit to countries as a result of the measures taken for the epidemic, the change in consumption habits of individuals and the limitation of consumption as a result of curfews (Table 1).

Table 1: The percentage change in imports and exports of goods and services in developed countries and Turkey between the years 2019-2022 (estimation of 2022 figures).

Country	Importation				Exportation			
	2019	2020	2021	2022	2019	2020	2021	2022
Canada	0.3	-11.2	12.7	10.3	1.2	-10.5	5	8.4
France	2.3	-12.1	8	5.9	1.5	-16.1	7.4	6.9
Germany	2.8	-9.1	8.6	6.9	1.1	-1	9.3	5.9
Italy	-0.6	-12.5	13.4	10.2	1.6	-13.7	12.9	9.4

Correspondence to: Belal Dahiam Saif Ghaleb, Department of Social Sciences, Human Resources Management and Industrial Relations, Sakarya University, Sakarya, Turkey, E-mail: ghalebbelal27@gmail.com

Received: 02-Feb-2024, Manuscript No. JRD-24-29463; **Editor assigned:** 05-Feb-2024, PreQC No. JRD-24-29463(PQ); **Reviewed:** 20-Feb-2024, QC No. JRD-24-29463; **Revised:** 27-Feb-2024, Manuscript No. JRD-24-29463(R); **Published:** 07-Mar-2024, DOI: 10.35248/2311-3278.24.12.245

Citation: Ghaleb BDS (2024) The Impact of the COVID-19 Pandemic on Sectors: A Comprehensive Review. J Res Dev. 12:245.

Copyright: © 2024 Ghaleb BDS. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Japan	0.9	-7.2	9.4	9	-1.4	-11.7	13.1	7.7
UK	2.7	-17.8	1.6	9.8	2.6	-16.4	0.3	8.7
USA	1.1	-8.9	14.1	8.6	-0.6	-13.5	5.4	8.1
China	-3.6	-1.3	19.1	8.4	0.4	2.2	19.6	4.6
Russian	2.8	-12	17.3	6.8	-3.3	-4.2	3.1	5.5

The table shows that, the percentage change in imports and exports of goods and services in developed countries and Turkey between the years 2019-2022. These rates of change show how the commercial activities of countries have been affected by the impact of the COVID-19 outbreak. The data in the table show how international trade has been affected by the COVID-19 outbreak.

According to 2019 data, import data of China and Italy decreased compared to the previous year. This is a positive development for the economy of the countries. However, in the period when the COVID-19 epidemic reached its peak in 2020, international activity was interrupted, and both import and export rates showed a serious decrease. While a decrease in imports has a positive effect for countries, a decrease in exports has negative consequences.

We can also analysis the table in this case:

Import trends

- Most countries experienced a decline in imports in 2020, likely due to the impact of the COVID-19 pandemic on global trade.
- China and the USA showed relatively stable import performance in 2020, with smaller percentage changes compared to other countries.
- Italy experienced the most significant decrease in imports in 2020 (-12.5%), while the UK had the sharpest decline in imports in 2020 (-17.8%).
- Canada, France, Germany, and Russia faced notable declines in imports in 2020 but saw strong recoveries in the following years.
- China, Italy, and Russia demonstrated robust import growth in 2021 and 2022.

Export trends

- Similar to imports, most countries experienced a decline in exports in 2020 due to the pandemic's impact.
- China and Germany had relatively stable export performance in 2020, with smaller percentage changes compared to other countries.
- Italy faced the most significant drop in exports in 2020 (-13.7%), followed by the USA (-13.5%).
- China, France, and Russia showed strong export growth in 2021, with China's exports expanding significantly in both 2021 and 2022.
- Italy, Japan, and the UK demonstrated solid export recoveries in 2021 and 2022.
- The USA and Canada had moderate export growth in 2021 and 2022.

Overall resilience

- China demonstrated remarkable resilience, with positive growth

in both imports and exports throughout the period, particularly in 2021.

- Italy, Germany, and Russia experienced significant import and export growth in 2021 and 2022, indicating robust recoveries.
- Japan, Canada, and the UK also showed positive trends in both imports and exports, although their growth rates varied.

Economic recovery

- China, Italy, and Russia showed strong economic recovery from the pandemic-induced downturn, as evidenced by their substantial import and export growth rates.
- The USA and Canada also demonstrated a solid recovery, particularly in 2021 and 2022, with strong growth in both imports and exports.
- France, Germany, Japan, and the UK experienced moderate recoveries, with growth rates generally lower than some other countries.

Trade balance

- China and Germany consistently had positive trade balances throughout the period, indicating their strong export-oriented economies.
- Italy, Japan, and Russia also had positive trade balances in most years, while the UK and the USA had negative trade balances, importing more than they exported.

It's important to note that the data provided here is focused on the percentage change in imports and exports, not the absolute values of imports and exports. Additionally, various factors can influence trade performance, including geopolitical events, trade agreements, exchange rates, and shifts in global demand and supply chains.

In summary, China, Italy, and Russia stood out as strong performers in both imports and exports, demonstrating significant growth and resilience in their trade. Other countries, including the USA, Canada, and Germany, also showed considerable recovery, while some, like Japan, France, and the UK, had more moderate improvements. Overall, the data reflects the complex interplay of economic factors and global events that influence the trade performance of different countries (Table 2).

Table 2: The import and export in the world in general.

Year	Imports	Exports
2018	1	1
2019	1.02	1.03
2020	0.88	0.89
2021	0.96	0.97
2022	1.01	1.02
2023 (Estimated)	1.03	1.04

The COVID-19 pandemic had a significant impact on global imports and exports. In 2020, the ratio of imports to exports fell to 0.88, which was the lowest level since 2009. This decline was driven by a number of factors, including pandemic-related restrictions on movement and trade, reduced demand for goods and services, and supply chain disruptions.

However, the global trade recovery is still ongoing. In 2021, the ratio of imports to exports rose to 0.94, and it is expected to reach 1 in 2023. This recovery is being driven by a number of factors, including the easing of pandemic restrictions, the reopening of economies, and the increasing demand for goods and services.

It is important to note that these are just estimates, and the actual impact of the pandemic on imports and exports may be different. However, these estimates provide a good starting point for understanding the impact of the pandemic on global trade.

Here is a more detailed analysis of the impact of the pandemic on imports and exports:

- Pandemic-related restrictions on movement and trade. Many countries implemented travel restrictions and border closures in an effort to slow the spread of the virus. These restrictions made it difficult to move goods and people across borders, which led to a decline in trade. For example, in 2020, the number of international passenger flights fell by 60%.
- Reduced demand for goods and services. The pandemic led to a decline in economic activity, which reduced demand for goods and services. This decline in demand also led to a decline in trade. For example, in 2020, global GDP fell by 3.5%.
- Supply chain disruptions. The pandemic disrupted supply chains around the world. This was due to factory closures, port congestion, and other factors. These disruptions made it difficult to get goods to market, which also led to a decline in trade. For example, in 2020, the average time it took to ship a container from China to the United States increased by 50%.

The impact of the pandemic on imports and exports varied across countries. Some countries, such as China, were able to recover relatively quickly from the initial shock. Other countries, such as India, were more severely affected.

As of 2023, the global trade recovery is still ongoing. However, the full impact of the pandemic on trade is still not clear. It is possible that the pandemic will have a lasting impact on global trade patterns.

Impact on banking and finance sector

The banking sector becomes vulnerable due to non-performing loans and excessive transaction volume in times of economic contraction. As was the case during the HIV epidemics, large-scale deposit withdrawals for individual treatments pose a problem for the banking sector. This situation increases the risks that financial institutions may face.

Closure of workplaces, slowdown or stoppage of production, decrease in sales, staying at home in many sectors negatively affect the repayment of debts and cause an increase in non-performing loans. This situation requires governments and central banks to provide various supports such as providing liquidity, deferring tax and credit debts of companies, and assistance to SMEs in order to alleviate the inevitable problems in the banking and finance sector.

Impact on the agriculture sector

The deterioration in macroeconomic transmission channels

significantly affects agricultural supply and demand and, accordingly, agricultural trade. Particularly, the rapid declines in oil and metal prices exert pressure on the exchange rates of commodity exporting countries and have an impact on all agricultural commercial goods.

In addition, as a result of the COVID-19 pandemic, the number of unemployed people is increasing rapidly, and the purchasing power of those who have lost their jobs is decreasing. This ultimately creates a negative shock to the final food demand. With the measures taken in the fight against COVID-19, the tourism sector has come to a standstill, and there has been a reduction of 80% in eating/drinking rates. This situation causes decreases in agricultural food demand and also affects the agricultural sector. However, the fact that the flexibility in the agriculture sector is lower than in other sectors indicates that the impact of COVID-19 on agri-food demand will be lower than in other sectors.

Impact on the supply chain and manufacturing industry

The negative effects of the pandemic have posed a great threat especially to the supply chain and manufacturing industry sectors. In such extraordinary times, the temporary unavailability of factories, suppliers and transport links creates a rapid and negative impact on the supply chain. Material shortages and delivery delays cause poor performance, leading to a surge in revenue, service level and efficiency [2].

China maintains its leading position in the world in the field of supply chain. However, the fact that the pandemic was first seen in China and spread from there to the world, that China was blamed for being late in taking the necessary measures against the pandemic, and the possibility of encountering similar situations, indicates that the supply chains of countries in the post-pandemic world will change. Some countries are expected to invest more in this sector, while others are expected to seek alternative supply chain channels. Such pandemics can also cause long-term changes in consumer behavior. For example, Haacker points out that there has been a permanent change in consumer behavior resulting from the HIV epidemic [3]. In addition, the decline in worldwide expenditures and domestic demand poses a great challenge for the global economy.

Changes in demand from consumers will also affect manufacturing industries. In this context, the COVID-19 pandemic will also negatively affect the manufacturing sector. In a survey conducted in the UK, more than 80% of respondents expected a decrease in their turnover in the next two quarters, while 98% expressed their concerns about the negative impact of the pandemic on business operations [4].

Impact on the public sector

Social distancing and quarantine measures implemented in many countries as part of the fight against the epidemic led to the closure of businesses in the service sector and the loss of their jobs. These measures had a series of effects, such as the closure of businesses such as hotels, restaurants, cafes, and the suspension of public transport and air travel. Although it primarily causes a contraction in the service sector, in a more general perspective, it can lead to a decrease in demand in the entire economy and cause economic stagnation. As a result of the economic recession, there will be production losses in many sectors.

Income earners in these sectors will inevitably decline, and many will even risk being deprived of their fixed regular income. According to the social state understanding, states have to protect their citizens against these risks. However, the policies implemented to combat the

epidemic, increased health, public and social expenditures, forgone taxes, etc. As a result, state budgets will be severely suppressed and forced [5].

On the other hand, as a result of the part-time working models applied in government institutions, productivity is gradually decreasing and the time cost is increasing. In addition, investment programs to be implemented are postponed and state budgetary resources are mostly shifted to social and public expenditures. This situation makes it difficult for the state to achieve its economic growth and development goals.

Impact on aviation industry

With the global impact of the pandemic and its spread among countries, the prohibition of air travel has come to the fore among the measures taken by the countries. These bans have been brought to domestic flights as well as international flights. This situation causes a crisis and recession that has never been experienced before in the history of the civil aviation industry. Since many aircraft cannot be operated, airline companies cannot pay their aircraft rental and loan debts, and existing insurance companies cannot handle this burden. According to the estimates made by the Airports Council International (ACI), a 12% contraction is expected in the global airport passenger traffic in the first quarter of 2020. The regions that will be most affected by this contraction are the Asia-Pacific and Europe regions, which are expected to contract by 24% and 9.1%, respectively. In North America, which was the third most populated region with 481 million passengers before COVID-19, a decrease of approximately 1% in the number of passengers is predicted (Table 3).

Table 3: The expected change in global airport passenger traffic after COVID-19.

Regions	Predicted number of passengers before COVID-19 (Millions)	Projected number of passengers after COVID-19 (Millions)	Rate of change
Africa	55	55	-0.30%
Asia-Pacific	867	659	-24%
Europe	503	457	-9.10%
Latin America	181	180	-0.30%
Middle East	109	104	-4.20%
North America	481	477	-1%
World	2.195	1.193	-12%

The table shows the expected change in global airport passenger traffic after COVID-19. Therefore, the impact of the pandemic on the civil aviation industry has been enormous, leading to financial problems for airline companies and lack of resources for insurance companies. The expected contraction in global airport passenger traffic will adversely affect activities in the aviation industry. According to the latest statistics released by the International Civil Aviation Organization (ICAO), a 47% reduction in international passenger traffic is predicted in the first half of 2020 due to the epidemic. According to statistics, he estimated the reduction to be 47% if the epidemic ended at the end of May, and 58% if it ended at the end of June. In this period, the total number of passengers decreased by 503 million at the end of May and by 607 million at the end of June. In addition, losses to airlines are estimated to exceed \$135 billion, with the largest loss of revenue expected in Europe, Asia-Pacific and North America (Figure 1).

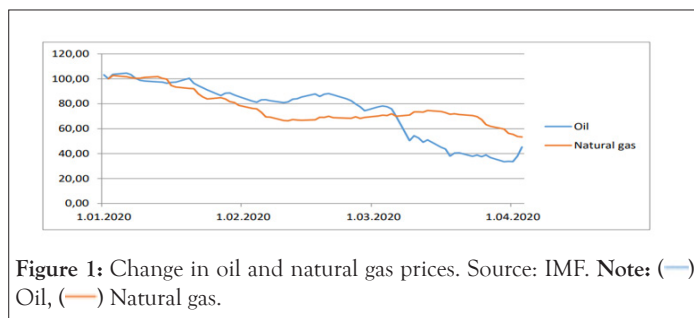


Figure 1: Change in oil and natural gas prices. Source: IMF. Note: (—) Oil, (—) Natural gas.

The contraction in the aviation sector is expected to be -7.0% in Germany, -7.2% in France, -9% in Italy, -9% in Spain, -5.9% in the USA, -5.2% in Japan and -6.5% in the UK. This will cause an increase in the loss of workforce in the aviation sector. The latest statistics released by ICAO clearly reveal the extent of the pandemic's impact on the aviation industry and the challenges facing the industry.

Impact on the energy sector

The COVID-19 pandemic has created an unprecedented global health and economic crisis around the world, affecting many sectors, including the energy sector, which is one of the most important providers of modern life. At the beginning of 2020, oil prices were falling due to the oil price war between Russia and Saudi Arabia. The coronavirus pandemic, combined with the decline in oil demand, has exacerbated this situation. The decrease in the movement of people and goods due to compulsory travel restrictions, the cessation of the aviation industry and the falling fuel demand also reduced the demand for coal and other energy products, which led to a decrease in oil prices due to low demand.

With the first news of death from China on January 1, crude oil prices have gradually dropped by about 30%. On March 9, Saudi Arabia's refusal to adhere to quotas and increased oil production resulted in a 33% drop in oil prices, the biggest daily drop since operation desert storm (33%). Crude oil prices, which were around \$100 at the beginning of 2020, dropped to one-fifth in four months, reaching \$20 at the end of April [6].

Impact on tourism sector in the world in the COVID-19 process

The tourism industry has been heavily impacted by travel restrictions due to the COVID-19 pandemic. Measures such as curfews and travel restrictions have caused significant fluctuations in the global economy. Therefore, tourism activities have seriously slowed down since March 2020. Studies also confirm this situation [7].

When the effects of the pandemic are examined, it has been seen that it is more effective in continents, regions and countries where human mobility is intense. Especially Mediterranean and European destinations and Central and North American destinations are the regions most negatively affected by the decline in the world tourism sector [1]. It is predicted that travel bans and border closures carried out to take the COVID-19 pandemic under control, the tourism sector, which is rapidly affected by the crises, is seriously affected by the COVID-19 conditions and it is difficult to normalize in the short term [8].

Due to the cessation of the activities of all tourism companies at the national and international level, many people working in the tourism sector have become unemployed [9,10].

Impact on the other sectors

Healthcare industry: The healthcare sector experienced an overwhelming surge in demand for medical supplies, Personal Protective Equipment (PPE), and critical care facilities. Hospitals faced immense pressure to handle the influx of COVID-19 patients, while elective procedures and routine healthcare services were delayed or suspended. The rapid development and deployment of vaccines marked a significant turning point in the pandemic response, but supply chain challenges and vaccine distribution disparities impacted the global vaccination efforts.

Retail and E-commerce: Physical retail establishments experienced a sharp decline in foot traffic as lockdowns forced store closures or limited operating hours. The pandemic accelerated the shift towards e-commerce, with consumers embracing online shopping for safety and convenience. Businesses with strong e-commerce capabilities and efficient delivery systems thrived, while others had to rapidly adapt to survive.

Entertainment and events: Mass gatherings and live events were heavily restricted during the pandemic, affecting theaters, cinemas, music concerts, and sports events. Streaming platforms and virtual events emerged as alternatives, meeting the demand for entertainment from the comfort of people's homes. The industry's recovery depended on vaccination rates and the easing of gathering restrictions.

Education: The education sector faced unprecedented disruption as schools and universities shifted to remote learning. The digital divide became apparent, with disparities in access to technology and the internet affecting students' learning experiences. Hybrid learning models emerged, combining in-person and remote teaching, as the industry adapted to the new normal.

Technology: The technology sector experienced mixed impacts during the pandemic. Companies providing remote work solutions, video conferencing, and e-commerce platforms witnessed tremendous growth. However, the sector faced challenges related to supply chain disruptions and reduced consumer spending on non-essential gadgets and electronics.

Hospitality and restaurants: Restaurants, bars, and hotels faced a severe blow as lockdowns and social distancing measures restricted dine-in services and travel. Many businesses in this sector struggled to survive, leading to layoffs and closures. Delivery and takeaway services were critical for restaurants to adapt and generate revenue during the pandemic.

DISCUSSION

Analysis

The COVID-19 pandemic posed unique challenges for each industry, but it also accelerated digital transformation and innovation. Industries that swiftly adapted to remote work, contactless services, and online platforms demonstrated greater resilience. Consumer behavior shifted significantly, favoring e-commerce, digital entertainment, and remote services.

The recovery of industries depended on vaccination rates, government policies, and people's confidence in resuming normal activities. As the world transitions into a post-pandemic era, the lessons learned from this global crisis will shape industries' future strategies. The pandemic underscored the importance of agility, technology adoption, and crisis preparedness for businesses to thrive in an ever-changing world.

CONCLUSION

The COVID-19 pandemic left an indelible mark on sectors worldwide, testing their resilience and adaptability. While some sectors faced severe disruptions, others found new opportunities for growth and transformation.

The global economy faced unprecedented challenges due to the COVID-19 pandemic, leading to widespread disruptions across various sectors. Significant declines in global trade, particularly in imports and exports during 2020, marked the initial impact, with signs of recovery observed in some countries in subsequent years. While China, Italy, and Russia exhibited robust economic rebounds, other nations experienced more moderate recoveries. The banking and finance sectors grappled with issues like non-performing loans and heightened transaction volumes, while the agriculture industry faced decreased demand and unemployment. Supply chain disruptions deeply affected manufacturing, while the energy sector saw a sharp decline due to reduced movement and demand. Aviation and tourism sectors suffered immensely due to travel restrictions, leading to financial strains and workforce reductions. These changes prompted shifts in consumer behavior and accelerated the importance of e-commerce and remote learning. The pandemic-induced transformations destabilized economic balances and compelled nations to reevaluate economic policies and social services to navigate the evolving global landscape.

The pandemic prompted industries to reevaluate their strategies, embrace digitalization, and prioritize safety and hygiene measures. As vaccines became widely available, industries gradually started to recover, albeit at varying rates. The pandemic's impact will continue to shape industries' trajectories, guiding their path towards a more resilient and sustainable future. Understanding the lessons learned from this unprecedented event will help industries build back stronger and better equipped to face future challenges.

ACKNOWLEDGEMENT

I am grateful to my family for their continuous supports.

CONFLICT OF INTEREST

I declare that, during this study, from any institution or business that has a direct connection with the subject of the research, a company that provides and/or produces tools, equipment and materials, or any commercial company, During the evaluation process of the study, no material or moral support was received that could negatively affect the decision to be made regarding the study. I also declare that, regarding this study, the authors and/or their family members do not have any relationships with scientific and medical committee members or members, consultancy, expertise, employment in any company, shareholding or similar situations that may have a potential conflict of interest.

REFERENCES

1. Levent YM. Assessment report on the economy dimension of the COVID-19 pandemic and its aftermath. 2020.
2. Ivanov D. Predicting the impacts of epidemic outbreaks on global supply chains: A simulation-based analysis on the coronavirus outbreak (COVID-19/SARS-CoV-2) case. *Transport Res Part E: Logist Transport Rev.* 2020;136:101922.
3. Haacker M. The impact of HIV/AIDS on government finance and public services. *Macroeconom HIV/AIDS.* 2004;2002:198-258.
4. Nicole M, Alsafi Z, Sohrabi C, Kerwan A, Al-Jabir A, Losifidis C, et al.

- The socio-economic implications of the coronavirus and COVID-19 pandemic: A review. *Inter J surg.* 2020;78:185-193.
5. Arslan I, Bayar I. COVID-19 pandemic, its economic effects and the future of the global economy. *Gaziantep Univer J Soc Sci.* 2020;19:87-104.
 6. World economic outlook database. Inter Monetary Fund. 2021.
 7. Baker S, Bloom N, Davis S, Terry S. COVID-induced economic uncertainty and its consequences. *VoxEU.* 2020.
 8. Ibis S. The impact of the COVID-19 epidemic on travel agencies. *Safran J Cult Tour Res.* 2020;3(1):85-98.
 9. Recoveries MD. World economic outlook. Inter Monetary Fund. 2021.
 10. Sami DM, Mustafa A. What a Virus Affects the World: Macroeconomic Effects of the COVID-19 Pandemic. *Inter J Soc Econ Sci.* 2020;10(1):54-67.