American International Journal of Business Management (AIJBM)
ISSN- 2379-106X, www.aijbm.com Volume 4, Issue 12 (December-2021), PP 01-09

The impact of the covid-19 pandemic on exporting manufactured products in Vietnam

Pham Tran Minh Duc[1], Truong Cong Bac[2*]
[1]*Faculty of Commerce, Van Lang University, Ho Chi Minh City, Vietnam*
[2]*Faculty of Commerce, Van Lang University, Ho Chi Minh City, Vietnam*
**Corresponding Author: Truong Cong Bac*

ABSTRACT: *The outbreak of the COVID-19 pandemic was indeed one of the unexpected shocks to the global economy. This pandemic has disrupted the supply chain of goods, affected the supply and demand between countries, and reduced the economies of many different regions and countries. Realizing the impact of this pandemic on countries around the world, the author conducted this research to assess the impact of COVID-19 on the export activities of some strategic commodities in VietNam such as computers, electrical products, spare parts, and components thereof; telephones, mobile phones and part thereof; wood and wooden products; textiles and garments; footwear products. The author uses the secondary data is export value data of each item, to assess the difference between before and after the pandemic. From the results of the analysis and evaluation of the data, this research found that COVID-19 does not completely affect all these sectors. And finally, the author gives some recommendations to improve the export capability in similar cases in the future.*

KEYWORDS-*Covid-19, manufactured products, export, Vietnam.*

I. INTRODUCTION

The process of expanding trade in goods manufactured from VietNam to countries around the world has made remarkable progress in recent years thanks to Free Trade Agreements (FTAs) such as CPTPP, EVFTA,… so the economy in VietNam has always maintained a high GDP growth rate. Import-export activities help the country increase foreign currency revenue, stimulate technological innovation to follow the world, create more jobs for working people. In which, the export of manufactured goods "made in VietNam" is one of the essential factors contributing to the development of the import-export industry in particular and Vietnam's economy in general. Thanks to import-export activities, Vietnam has attracted lots of resources from major countries in the world, such as technology, energy, human resources, fuel. Since then, Vietnam can close the economic gap with other big countries.

However, under the influence of the outbreak of the COVID-19 pandemic in China in the last months of 2019 and its rapid spread to regions with developed economies, the COVID-19 pandemic has created a significant disruption on a global scale, especially in Europe, the US, China, India, and many developed economies. The manufacturing supply chain has been massively disrupted (Deshmukh & Haleem, 2020). This shock impacted most countries around the world, reduced the growth economy of many countries, and the GDP of some countries has negative growth; typically, the growing GDP of the UK decreased up to 9.79% in 2020 compared to 2019.

The rapid spread of this pandemic not only impacted the developed countries but also to VietNam. From the early of 2020 until now, this has been one of the special periods for many countries around the world and Vietnam as well since the global crisis (also known as "Great Recession") in 2008 – 2009. The global supply chain is completely broken and fragmented. Economic activity is almost paralyzed, especially in highly open economies. The economies of the countries fell into a severe recession (Chương, 2020). Because of extensive economic integration, Vietnam's economy was heavily affected by the COVID-19 pandemic but also showed considerable resilience (World Bank, 2021). The outcomes of COVID-19 when it spread to Vietnam have made the economy go down, causing many people to lose their jobs and factories to shut down to reduce the spread of COVID-19. According to the Vietnam Statistical Yearbook, 2020, published by the Vietnam Statistical Office, the unemployment rate of people of working age across the country reached 2.48% (the highest level compared to the number for the past five years). If mentioning the proportion of people without jobs, the whole country recorded 2.52%; this number increased by 1.02% compared to 2019 when the COVID-19 epidemic had not broken out in VietNam. After the effects of this pandemic, Vietnam is still estimated to achieve 2.91% GDP growth in 2020. Indeed, all countries have to face difficulties and challenges brought by the COVID-19 pandemic. Recognizing the significant impact of COVID-19 on supply chain disruptions and the economy of Vietnam as well as other countries in the world, this study was conducted to assess the impact of COVID-19 on the economy. The impact of COVID-19 on the production and export of industrial products such

as computers, electrical products, spare parts, and components thereof; telephones, mobile phones and part thereof; wood and wooden products; textiles and garments; foot-wear products.Although there have been many studies on the impact of COVID-19 on the Vietnamese economy with models and data, there are no recent specific studies analyzing the impact of this pandemic on these industries. Therefore, the author has conducted this research to study this effect more clearly.

The rest of the paper is organized as follows: Section 2 is the literature review and research hypothesis. In section 3, the research data and methodology is described. Section 4 is the research results, and Section 5 is the discussion. The final section is the conclusion.

II. LITERATURE REVIEW AND HYPOTHESIS

2.1. Literature Review

Throughout 2020, international trade has been severely damaged by the global recession known as "COVID-19" (Benguria, 2021). The outbreak of this COVID-19 pandemic has caused a global economic crisis and specific effects on industries around the World (Lu et al., 2021). The Covid-19 pandemic has seriously affected the global value chain as well as the domestic production network; the ongoing pandemic has caused unprecedented disruptions to cross-border activity in general (Sahoo & Ashwani, 2020). The primary influence in this crisis comes from financial management and disruptions in supply chains (Ratnasingam et al., 2020). The main means of transport, such as air and sea, had to stop working immediately after the COVID-19 epidemic spread to many countries, which also means that import and export activities are also banned (Agrawal et al., 2020). All major countries such as the US, China, Japan, UK, France, Germany, and Italy have also been severely affected by this virus in the first quarter of 2020 – estimated at 60% of supply-demand Worldwide, 65% of world production, and most products are produced for export (Evenett, 2020). Especially, the region with the strongest economy in the world is the European Union (EU). The COVID-19 crisis has had an abrupt impact on the EU economy and has produced unprecedented policy responses in Europe and globally (de Vet and partners, 2021). Trade between countries in the world will also decline sharply by 13-32% in 2020 just because of this pandemic (Mou, 2020). The manufacturing sector has also stagnated due to the fact that the export of goods has been greatly slowed down between countries and partly due to the slowdown in the global economy (Sahoo & Ashwani, 2020).

A pandemic spreading across multiple countries will lead to supply and demand shocks, impaired risk analysis, and the inevitable consequence of global supply chain disruptions (Karagöz, 2020). The outbreak of this pandemic on a global scale has made multinational companies fear because it disrupts the global supply chain and is difficult to recover in a short time, and the direct consequence of this disruption is a decline in exports of goods between countries (Karagöz Özenç, 2020). The export value of goods to countries with strict regulations has decreased significantly, while the value of imports has not been affected (Lucio et al., 2020). On the macroeconomic level, this pandemic has strongly damaged the entire economy, including the United States, especially in terms of import and export trade, GDP, and welfare. In terms of levels within a country, different pandemic contexts will create significant disparities in the division of labor and participation in GVCs by China and its trading partners. Taking into account the level of each specialty, this pandemic has impacted the division of labor in China's industrial sectors (electronics and computer products) (Song et al., 2021). A sudden shutdown of global manufacturing activity and a contraction in international trade will shrink the global economy. The industries most affected are electronics and optics, textiles and apparel, machinery manufacturing (Qin et al., 2020).

The outbreak of the COVID-19 pandemic in China and its spread globally will create many regulations on movement restrictions, trade closures, etc. (Mou, 2020). China's temporary trade closure has greatly affected many countries in the supply chain that depend on the import of semi-finished products from China (Ozili & Arun, 2020). China and India are among the leading countries in exporting goods and services to major countries worldwide but are also affected by this pandemic (Shrivastava and partners, 2021). The delay in the import-export process can cause a lot of consequences not only for the Indian economy but also for other countries in the supply chain (Dhinakaran & Kesavan, 2020). As the epidemic spread in India, the government suspended operations for 41 days, which severely affected manufacturing activities and impacted mainly the product supply chain of this country (Agrawal et al., 2020). However, among countries in the Asian region, the output of goods is not affected too much compared to other regions (Hayakawa & Mukunoki, 2021).

Each industry will be affected differently, for the manufacturing industry is mainly affected by global supply chain disruptions, short-term profit decline, and limited capacity. Continuing to work and produce is the main problem that businesses all face (Lu et al., 2021). The lack of product supply from China has caused supply shortages, and since then, commodity prices have escalated (Ozili & Arun, 2020). Exporting countries have suffered heavy losses in exporting textiles, footwear, and plastic products (Hayakawa & Mukunoki, 2020). China has successfully weathered this recession by manufacturing and exporting products while the rest of the World is still reeling from this pandemic (Özaytürk& Özaytürk, 2021). The dangers of this pandemic for

garment manufacturers and exporters, as global apparel industry products, are expected to decline during and after the pandemic (Chakraborty & Biswas, 2020). This pandemic has affected many aspects of businesses in the wooden furniture manufacturing industry in Malaysia (Ratnasingam et al., 2020). The dangers of this pandemic for garment manufacturers and exporters, as global apparel industry products, are expected to decline during and after the pandemic (Chakraborty & Biswas, 2020).

The burden of this epidemic does not affect importing countries; but instead, this epidemic has negative effects on commodity-exporting countries, especially for developing countries. (Hayakawa & Mukunoki, 2020). The COVID-19 pandemic has had negative effects on the global supply chain, especially because the supply chains of many countries have dependent links with China, and Vietnam is also one of the affected countries' influences (Minh, 2020). The impact of Covid-19 in Vietnam is enormous, shown in the statistics of the first quarter of 2020 at the worst level in recent years; this effect leads to a decline and affects the industry group processed in Vietnam (Dat, 2020). With the negative impact of the pandemic on the production and export activities of many businesses, many businesses face the risk of bankruptcy (Chuong, 2020).

2.2. Research Hypothesis:

Based on the available research and theoretical basis from the scientific articles and research articles presented above, the author proposes the following research hypothesis:

- *H_1: Covid-19 affects exports of computers, electrical products, spare parts, and components thereof*
- *H_2: Covid-19 affects the export of telephones, mobile phones and part thereof.*
- *H_3: Covid-19 affects the export of wood and wooden products*
- *H_4: Covid-19 affects the export of foot-wear products*
- *H_5: Covid-19 affects the export of textiles and garments*

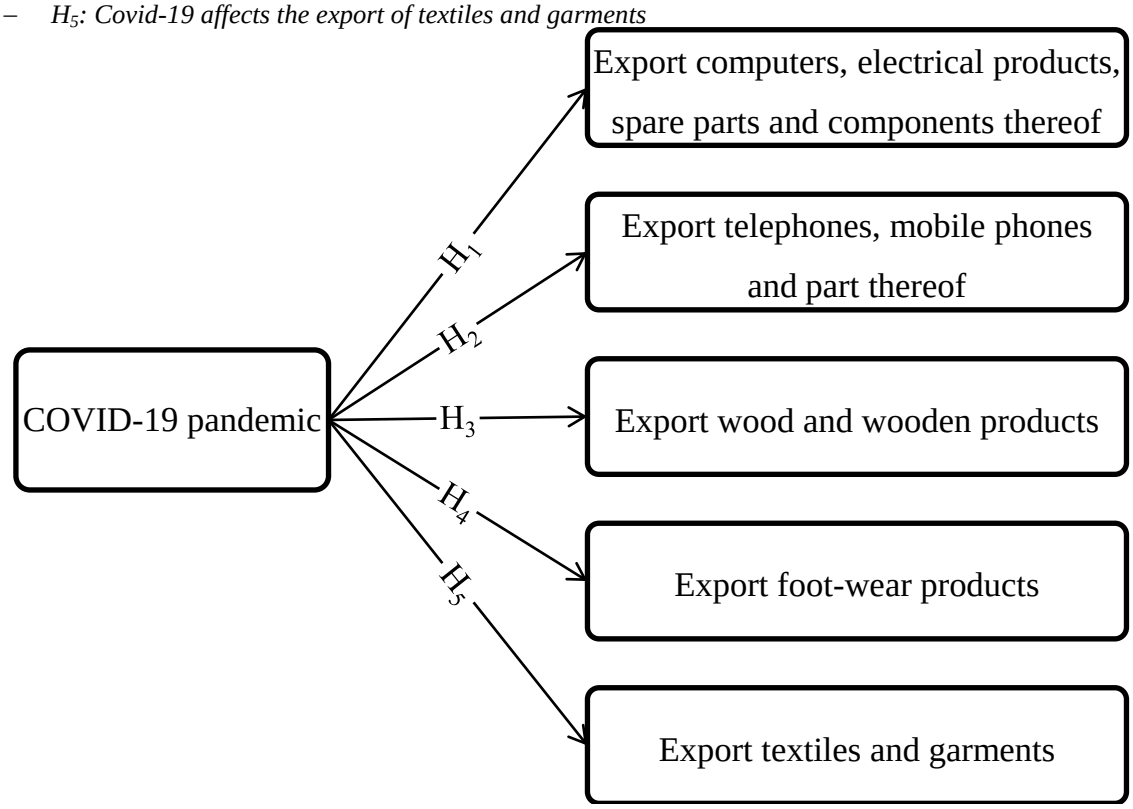

Figure 1: Research Framework

III. METHODOLOGIES AND DATA

To make the research more reliable, the data used in this article are all based on the secondary data on the above items officially reported from the General Department of Vietnam Customs, the General Statistics Office, and the Ministry of Industry and Trade in Vietnam. Then, the author divides the data into 2-time points: Before the pandemic (from January 2018 to the end of 2019) and after the pandemic (from January 2020 to the end of September 2021) to test the hypothesis of assessing the impact of the pandemic.

From the collected data, the author uses a descriptive statistics table to briefly analyze the difference between the export value of the five groups of products mentioned above. Then, the author uses the analysis of variance method to test the hypothesis and give conclusions.

IV. RESULTS

4.1. Descriptive statistics.

From Table 1, we can find that: The average export value of computers, electrical products, spare parts, and components after the pandemic increased by 573,9941 mil USD compared to before the pandemic. The largest export value of computers, electrical products, spare parts, and components after the pandemic sometimes reached the threshold of 2790 mil USD, higher than before the pandemic 710 mil USD. The smallest export value of computers, electrical products, spare parts, and components after the pandemic reached 1113 mil USD, higher than before the pandemic 492 mil USD.

After the pandemic, the average export value of telephones, mobile phones, and part thereof increased by 104,3304 mil USD compared to before the pandemic. After the pandemic, the highest export value of telephones, mobile phones, and part thereof sometimes reached the threshold of 3320 mil USD, higher than before the pandemic 80 mil USD. The minimum export value of telephones, mobile phones, and part thereof after the pandemic reached 1020 mil USD, lower than before the pandemic 122 mil USD.

Table 1 indicates that the average export value of wood and wooden products after the pandemic showed signs of an increase of 129,0982 mil USD compared to before the pandemic. After the pandemic, the largest export value of wood and wooden products sometimes reached the threshold of 810 mil USD, higher than before the pandemic 160 mil USD. The export value of wood and wooden products after the pandemic was also at the lowest level of 284 mil USD, higher than before the pandemic of 200 mil USD.

As for footwear products, the average export value of footwear products after the pandemic has decreased by 4,834 mil USD compared to before the pandemic. The largest export value of footwear products after the pandemic sometimes reached the threshold of 1030 mil USD, higher than before the pandemic 18 mil USD. The export value of footwear products after the pandemic was also at the lowest level of 300 mil USD, higher than before the pandemic 55 mil USD.

It can be seen that the average export value of footwear products after the pandemic has decreased by 4,834 mil USD compared to before the pandemic. The largest export value of footwear products after the pandemic sometimes reached the threshold of 1030 mil USD, higher than before the pandemic 18 mil USD. The export value of footwear products after the pandemic was also at the lowest level of 300 mil USD, higher than before the pandemic 55 mil USD.

As for textiles and garments, the average export value of textiles and garments after the pandemic has decreased by 102,2826 mil USD compared to before the pandemic. The largest export value of textiles and garments after the pandemic only reached 1650 mil USD, lower than before the pandemic 396 mil USD. The lowest export value of textiles and garments after the pandemic reached 710 mil USD, lower than before the pandemic 276 mil USD.

Table 1: Export value of manufactured products before - after the pandemic

Manufactured products	Periods	N	Mean	Std. Error	Minimum	Maximum
Computers, electrical products	Before	48	1356.9583	42.65042	621.00	2080.00
	After	42	1930.9524	55.29688	1113.00	2790.00
Telephones, mobile phones	Before	48	2091.1458	75.04628	1142.00	3240.00
	After	42	2195.4762	94.30917	1020.00	3320.00
Wood and wooden products	Before	48	406.8542	14.34716	84.00	650.00
	After	42	535.9524	22.23429	284.00	810.00
Foot-wear products	Before	48	719.3542	21.57205	245.00	1012.00
	After	42	714.5238	27.04273	300.00	1030.00
Textiles and garments	Before	46	1362.2826	33.42015	986.00	2046.00
	After	42	1260.0000	37.20727	710.00	1650.00

Source: Author's calculate

4.2. Hypothesis testing

Through Table 2, we see Sig. of Levenes Statistic = .148 > 0.05; we can say that there is no difference in variance between the export value of computers, electrical products, spare parts, and components thereof before and after the pandemic. We can use the results of the F-test in the ANOVA statistics for this case.

Table 2: Tests of Homogeneity of Variances for computers, electrical products

	Levene Statistic	df1	df2	Sig.
Based on Mean	2.126	1	88	0.148
Based on Median	2.059	1	88	0.155
Based on Median and with adjusted df	2.059	1	87.244	0.155
Based on trimmed mean	2.131	1	88	0.148

Source: Author's calculate

From the result in Table 3 below, we have Sig. < .001 < 05, we can conclude that: There is a statistically significant difference in the value of the variables between different time periods. It means we can accept hypothesis H1: *Covid-19 affects exports of computers, electrical products, spare parts, and components thereof.*

Table 3: ANOVA statistics for computers, electrical products

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7380109.334	1	7380109.334	69.317	<.001
Within Groups	9369230.821	88	106468.532		
Total	16749340.156	89			

Source: Author's calculate

Table 4 shows that Sig. of Levenes Statistic = .234 > 0.05, we can say there is no difference in variance between the export value of telephones, mobile phones, and part thereof before and after the pandemic. We can use the results of the F-test in the ANOVA statistics for this case.

Table 4: Tests of Homogeneity of Variances for telephones, mobile phones

	Levene Statistic	df1	df2	Sig.
Based on Mean	1.436	1	88	0.234
Based on Median	1.404	1	88	0.239
Based on Median and with adjusted df	1.404	1	86.295	0.239
Based on trimmed mean	1.44	1	88	0.233

Source: Author's calculate

The results in Table 5 indicate that Sig. = .384 > 0.05, we can conclude that: There is no statistically significant difference in the value of the variables between different periods. It means we will reject the hypothesis *H2: Covid-19 affects the export of telephones, mobile phones, and part thereof*.

Table 5: ANOVA statistics for telephones, mobile phones

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	243820.045	1	243820.045	.766	.384
Within Groups	28021509.455	88	318426.244		
Total	28265329.500	89			

Source: Author's calculate

Through Table 6, we see Sig. of Levenes Statistics < .001 < 0.05, the hypothesis of homogeneity of variance between the groups of values was violated. We can't use the F-test value of the ANOVA statistics but will use the Welch test for this case.

Table 6: Tests of Homogeneity of Variances for wood and wooden products

	Levene Statistic	df1	df2	Sig.
Based on Mean	11.693	1	88	<.001
Based on Median	11.538	1	88	0.001
Based on Median and with adjusted df	11.538	1	87.816	0.001
Based on trimmed mean	11.703	1	88	<.001

Source: Author's calculate

From the result in Table 7, we have Sig. of the Welch test < .001, we can conclude that: There is a statistically significant difference in the value of the variables between different time periods. It means we can accept hypothesis *H3: Covid-19 affects the export of wood and wooden products.*

Table 7: Robust tests of Equality of Means for wood and wooden products

	Statistic[a]	df1	df2	Sig.
Welch	23.802	1	71.446	<.001
a. Asymptotically F distributed.				

Source: Author's calculate

Through Table 8, we see Sig. of Levenes Statistic = .165 > 0.05, we can say there is no difference in variance between the export value of foot-wear products before and after the pandemic. We can use the results of the F-test in the ANOVA statistics for this case.

Table 8: Tests of Homogeneity of Variances for shoes and sandals

	Levene Statistic	df1	df2	Sig.
Based on Mean	1.958	1	88	0.165
Based on Median	1.952	1	88	0.166
Based on Median and with adjusted df	1.952	1	87.955	0.166
Based on trimmed mean	1.956	1	88	0.165

Source: Author's calculate

Table 9 shows that Sig. = .888 > 0.05, we can conclude that: There is no statistically significant difference in the value of the variables between different time periods. It means we will reject hypothesis *H4: Covid-19 affects the export of footwear products.*

Table 9: ANOVA statistics for shoes and sandals

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	522.645	1	522.645	.020	.888
Within Groups	2309151.955	88	26240.363		
Total	2309674.600	89			

Source: Author's calculate

From Table 10, we see Sig. of Levenes Statistic = .584 > 0.05; we can say that there is no difference in variance between the export value of textiles and garments before and after the pandemic. We can use the results of the F-test in the ANOVA for this case.

Table 10: Tests of Homogeneity of Variances for textiles and garments

	Levene Statistic	df1	df2	Sig.
Based on Mean	0.302	1	86	0.584
Based on Median	0.428	1	86	0.514
Based on Median and with adjusted df	0.428	1	85.758	0.514
Based on trimmed mean	0.347	1	86	0.557

Source: Author's calculate

The results in Table 11 below indicate that Sig. = .043 < 0.05, we can conclude that: There is a statistically significant difference in the value of the variables between different time periods. It means we can accept the hypothesis *H5: Covid-19 affects the export of textiles and garments*.

Table 11: ANOVA statistics for textiles and garments

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	229682.572	1	229682.572	4.206	.043
Within Groups	4695899.826	86	54603.486		
Total	4925582.398	87			

Source: Author's calculate

V. DISCUSSION

Based on the results of the testing hypothesis above, we can see that for two industry groups: foot-wear products, telephones, mobile phones, and part thereof. There was no difference in export value before and after the pandemic. But for the remaining three industry groups: computers, electrical products, spare parts and components thereof; wood and wooden products; textiles and garments. There is a difference in average export value before and after the pandemic. Therefore, we will ignore two groups of industries with no difference in average export value and conduct an analysis of the reasons that make the export value of the three groups of industries different.

During the global pandemic, the export of computers, electrical products, spare parts, and components thereof has become a bright spot for Vietnam, according to the author, based on the following factors: Businesses in this field have put in place effective methods to be able to operate effectively to help them get through this difficult time during this pandemic. Most of the production process relies on machines, less dependent on manual labor. In this field, Vietnam exports mainly basic products and components, so it is not affected much by supply disruptions by China. Receive the transition in product supply when major countries in the world shift their supply from China.

During this pandemic, the wood and wooden products industry faced difficulties due to the impact of the pandemic. However, this field received impressive growth during this period. Thus, according to the author, this growth is based on the following factors: businesses in this field have applied technology to their production and business processes, so they are not affected much by the lack of labor resources. Get the attention and support from the government to help businesses overcome this time. Enterprises and forest owners have appropriate forest control and exploitation measures. The afforestation countries in the ASEAN region have good disease control measures, so they have little impact on the supply of raw materials.

The export of textiles and garments is one of the important export industries for Vietnam. On average, this industry accounts for 12-16% of the country's total export turnover. Under the impact of the pandemic, this industry has been affected the most compared to other groups in the manufacturing industry. Since the beginning of January 2020, the export turnover of this product group has been severely reduced for many months and has only shown signs of recovery in the last months of 2020, but this rate of increase is still not really significant. Therefore, the author makes an argument about the cause of the decline for this product group: this industry group depends quite heavily on the supply of raw materials from China, so when China closes the trade, it leads to a shortage of output raw material supply, many businesses had to stop their production due to this shortage. Demand from partner countries is sharply reduced because people put priority on buying essential products. Businesses in this industry have not yet applied much technology to the production process; many businesses still apply manual processes. The directive 16 issued in the second wave of the pandemic caused businesses to reduce output or stop working because they could not let workers work in factories.

From research results, some following recommendations are supposed. The government should take appropriate measures to support the textile and garment manufacturing industry in particular and other industries that are affected by this pandemic. The government also needs to pay attention to creating policies to increase export overturn to help these enterprises develop more, contributing to national economic growth. Enterprises need to have specific plans and forecasts about supply-demand, labor shortage, as well as a decrease in orders from partners to avoid affecting business activities. Exporting businesses need to take measures to change the way they operate so as not to be affected in future cases.

VI. CONCLUSION

As we all know, COVID-19 has had a great impact on the world economy in general, which also means that this pandemic has also caused a lot of damage to the export process of countries around the world, and Vietnam is no exception. However, based on the results, the author can confirm that the COVID-19 pandemic does not affect the export of all products in the manufacturing industry in Vietnam. This pandemic also brings

positive changes to the export of products in industries such as computers, electrical products, spare parts and components thereof; wood and wooden products. In contrast, it also brings many negative impacts, especially on the export of textiles and garments; it reduces the export turnover of this item for many months even though this is one of the strategic industries in Vietnam.

Besides the contributions, this study has some limitations, such as the time and resources to carry out this study are quite short, so the author can only conduct this research based on the available data that has been published officially. The research has not been able to survey businesses so that there can be more data to analyze and assess more accurately on the topic. These limitations are also the suggestion to future researches.

REFERENCES

[1]. Deshmukh, S. G., & Haleem, A. (2020). Framework for manufacturing in post-Covid-19 world order: an indian perspective. *International Journal of Global Business and Competitiveness, 15*, 49-60.

[2]. Sahoo, P., & Ashwani. (2020). COVID-19 and Indian economy: Impact on growth, manufacturing, trade and MSME sector. *Global Business Review, 21(5),* 1159-1183.

[3]. Evenett, S. J. (2020). *COVID-19 and trade policy: Why turning inward won't work.* CEPR Press.

[4]. de Vet, J. M., Nigohosyan, D., Ferrer, J. N., Gross, A. K., Kuehl, S., & Flickenschild, M. (2021). *Impacts of the COVID-19 pandemic on EU industries.* European Parliament.

[5]. Sen, S., Antara, N., Sen, S., & Chowdhury, S. (2020). The Unprecedented Pandemic "COVID-19" Effect on the Apparel Workers by shivering the Apparel Supply Chain. *Journal of Textile and Apparel, Technology and Management*, *11*(3).

[6]. Qin, M., Liu, X., & Zhou, X. (2020). COVID-19 shock and global value chains: Is there a substitute for China?. *Emerging Markets Finance and Trade, 56(15),* 3588-3598.

[7]. Ratnasingam, J., Khoo, A., Jegathesan, N., Wei, L. C., Abd Latib, H., Thanasegaran, G., ... & Amir, M. A. (2020). How are small and medium enterprises in Malaysia's furniture industry coping with COVID-19 pandemic? Early evidences from a survey and recommendations for policymakers. *BioResources, 15(3),* 5951-5964.

[8]. Song, Y., Hao, X., Hu, Y., & Lu, Z. (2021). The Impact of the COVID-19 Pandemic on China's Manufacturing Sector: A Global Value Chain Perspective. *Frontiers in Public Health, 9, 509.*

[9]. Chakraborty, S., & Biswas, M. C. (2020). Impact of COVID-19 on the textile, apparel and fashion manufacturing industry supply chain: case study on a ready-made garment manufacturing industry. *Journal of Supply Chain Management, Logistics and Procurement, 3(2),* 181-199.

[10]. Karagöz Özenç, F. (2020). An Assessment of The Impact of The Pandemic on Global Supply Chains and Its Potential Outcomes.

[11]. Pati, U. K. (2020). Indonesian government policy in mitigating economic risks due to the impact of the Covid-19 outbreak. *Journal of Law and Legal Reform, 1(4),* 577-590.

[12]. Agrawal, S., Jamwal, A., & Gupta, S. (2020). Effect of COVID-19 on the Indian economy and supply chain.

[13]. Lu, L., Peng, J., Wu, J., & Lu, Y. (2021). Perceived impact of the Covid-19 crisis on SMEs in different industry sectors: Evidence from Sichuan, China. *International Journal of Disaster Risk Reduction, 55,* 102085.

[14]. Özaytürk, İ., & Özaytürk, G. (2021). The impact of Covid-19 to Chinese Industrial Good Export: Solidifying Its Position in The Global Market.*International Conference on Economics Turkish Economic Association.*

[15]. Shrivastava, A. K., Sharma, P., & Banik, A. (2021). Merchandise and Service Trade Deviations During COVID-19: A Performance Comparison Between India and China. *FIIB Business Review*, 23197145211020738..

[16]. Veeramani, S., & Anam. (2021). COVID-19 Impact on Exports of Services: Opportunities, Challenges and Suggestions for India. *FIIB Business Review*, 2319714520984676.

[17]. Dhinakaran , D. D. P., & Kesavan, D. N. (2020). Exports and Imports Stagnation in India During Covid-19- A Review. *GIS Business, 15(4),* 1158-1177.

[18]. Mou, J. (2020, July). Research on the Impact of COVID19 on Global Economy. *In IOP Conference Series: Earth and Environmental Science (Vol. 546, No. 3, p. 032043).* IOP Publishing.

[19]. Hayakawa, K., & Mukunoki, H. (2021). Impacts of COVID-19 on global value chains. *The Developing Economies, 59(2),* 154-177.

[20]. Hayakawa, K., & Mukunoki, H. (2020). Impacts of covid-19 on international trade: evidence from the first quarter of 2020 (No. 791). *Institute of Developing Economies, Japan External Trade Organization (JETRO).*

[21]. Espitia, A., Mattoo, A., Rocha, N., Ruta, M., & Winkler, D. Pandemic trade: COVID-19, remote work and global value chains. *The World economy*, 10-1111.

[22]. Hayakawa, K., & Mukunoki, H. (2021). Impacts of lockdown policies on international trade. *Asian Economic Papers, 20(2),* 123-141.

[23]. de Lucio, J., Mínguez, R., Minondo, A., & Requena, F. (2020). *Impact of Covid-19 containment measures on trade* (No. 2101). Department of Applied Economics II, Universidad de Valencia.

[24]. Akbulaev, N., Mammadov, I., & Aliyev, V. (2020). Economic impact of covid-19. *Sylwan*, *164*(5), 113-126.

[25]. Benguria, F. (2021). The 2020 trade collapse: Exporters amid the pandemic. *Economics Letters*, *205*, 109961.

[26]. Ozili, P., & Arun, T. (2020). *Spillover of COVID-19: Impact on the Global Economy* (No. 99317). University Library of Munich, Germany..

[27]. *WTO. (2021). World trade primed for strong but uneven recovery after COVID-19 pandemic shock, PRESS 876.https://www.wto.org/english/news_e/pres21_e/pr876_e.htm*

[28]. *Chương, P. H. (2020)*.Tác động của đại dịch covid-19 đến nền kinh tế Việt Nam*. Kinh tế & Phát triển, 274*(4). (In Vietnamese)

[29]. Đạt, T. T. (2020). Tác động của đại dịch COVID-19 đến nền kinh tế Việt Nam và giải pháp ứng phó. *Kinh tế & Phát triển, 274(4). (In Vietnamese)*

[30]. Minh, N. D. (2020). Sự chuyển dịch chuỗi cung ứng toàn cầu dưới tác động của Covid-19-Thuận lợi và khó khăn đối với Việt Nam. *Tạp chí Khoa học & Đào tạo Ngân hàng, 221(10). (In Vietnamese).*