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The Effect of COVID-19 Pandemic on Financial Performance of Firms: Empirical Evidence from Vietnamese Logistics Enterprises

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Abstract

The COVID-19 pandemic has hurt the economy and negatively impacted all enterprises' financial performance. The COVID-19 pandemic has put a strain on global manufacturing capacity and supply chains, and it is also the pandemic that has given up new opportunities for the logistics industry to develop as e-commerce has developed. By analyzing the financial performance of logistic firms listed on the Vietnam Stock Exchange, this study tries to quantify those consequences. A total of 114 logistic companies were included in the study's sample. The Wilcoxon Signed Rank Test was performed to test the difference between some ratios in 2019 and 2020. This study found that the financial performance of 114 logistic firms listed on the Vietnam stock exchange has not improved. The data show that during the COVID-19 pandemic, the leverage ratio increased while the profitability and efficiency ratios decreased. The liquidity ratio did not show any significant differences. On the contrary, these businesses' performance, such as returns on assets, receivable turnover, and leverage, has decreased. The COVID-19 had a global impact on supply chains, therefore export activity and international transportation were badly hampered, with only a few domestic logistic enterprises growing.

Keywords: COVID-19 Pandemic, Financial Performance, Logistics Enterprises, Vietnam

JEL Classification Code: M40, M41, M48

1. Introduction

A virus emerged in December 2019, causing medical specialists to be concerned about its contagiousness and lethality. After then, the corona virus caused a global COVID-19 pandemic. It had a significant economic impact not only in Vietnam but also in the majority of countries throughout the world.

In Vietnam, the pandemic has disrupted labor resources, reduced industrial output, and disrupted agricultural and supply chains. The COVID-19 pandemic and lockdowns have weakened consumption and investment, limiting Vietnam's growth prospects. According to VCCI (2020),

the COVID-19 pandemic has had a very negative impact on businesses in Vietnam. In which, 87.2% of businesses said that they were affected at "mostly" or "completely negative". Only 11% of businesses said they were "not affected at all" and nearly 2% reported an "absolutely positive" or "mostly positive" impact.

However, the impact of the COVID-19 pandemic on businesses in some industries is particularly large. The sectors most affected are Garment (97%), Information and Communication (96%), Electrical equipment manufacturing (94%), motor vehicle manufacturing (93%), among others. Logistics is an industry that provides services related to sea, air, and road transportation, as well as management of goods for customs declaration and customer service, delivery of goods to various distribution agents or consumers, maintaining goods in a state of readiness on customer request, and serving the retail supply chain.

The rapid development of e-commerce has caused consumption habits to shift away from traditional shopping and toward online purchases in the past. Furthermore, the economy continues to open and integrate more deeply, with more than 500 billion USD in annual import and export; when the Coronavirus, or COVID-19, pandemic struck,

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the global supply chain was severely disrupted, and many logistic enterprises were forced to close, resulting in a drop in their financial performance. This study will evaluate the financial performance of logistics organizations before and after the COVID-19 pandemic to provide more thorough information on this subject and to confirm the direction of negative or positive effects of COVID-19 on financial performance in logistics enterprises.

2. Literature Review and Hypothesis Development

Many studies have been conducted to determine the impact of the COVID-19 epidemic on the financial performance of businesses around the world. The studies listed below are some of the most common. Hadiwardoyo (2020) used a qualitative technique to research the financial performance of businesses during the COVID 19 pandemic. The findings suggested that the most affected business sectors rely on crowds, such as tourism and tourism-related businesses such as mass transit and hotels, as well as tertiary product firms that rely on public savings funds, property, and credit-giving institutions for their sales. The energy sector is likewise under severe strain as a result of dwindling business activity.

Aside from that, several other industries have been impacted in various ways. Goods delivery service providers, cellular operators, and Internet providers, emergency credit providers, and health insurance are among the industries that could benefit from social limitations during the COVID-19 pandemic. The health sector business also can generate profits for certain types of products such as masks, hand sanitizers, disinfectants, soaps, and similar products. The food sector is considered a stable business in crisis times, only experiencing adjustments in methods, such as ordering, payment, and delivery of goods (Al-Mansour & Al-Majmi, 2020). However, because it is based on qualitative data, the information on the influence of COVID-19 on firm performance in Hadiwardoyo (2020) is limited.

The COVID-19 pandemic had a major negative influence on the performance of listed Chinese firms (Shen et al., 2020; Rababah et al., 2020), due to a fall in total revenue, which also affected the decrease in ROA. Tourism, catering, and transportation were among the businesses that were heavily impacted in the first quarter of 2020, according to the study. The COVID-19 pandemic has harmed the industry's production, operations, and sales. Rababah et al. (2020) discovered that small and medium-sized businesses are the most affected by the pandemic, and their data demonstrated that serious-impact areas and industries that were most affected by the COVID-19 saw a steeper fall in financial

performance than other industries. Shaik (2021) found the same thing in a study about Saudi Arabia.

Devi et al. (2020) examined the impact of the COVID-19 pandemic on firms' financial performance of Indonesian listed companies. During the COVID-19 pandemic, the leverage ratio and short-term activity ratio increased, but the liquidity ratio and profitability ratio of public firms decreased. The liquidity ratio and leverage ratio did not differ significantly. However, the profitability ratio and short-term activity ratio of state firms diverged dramatically before and during the COVID-19 epidemic. The consumer goods industry saw an increase in liquidity ratio, profitability ratio, and short-term activity ratio while seeing a fall in the leverage ratio. Property, real estate and building construction, finance, trade, services, and investment industries, on the other hand, experienced a fall in liquidity and profitability ratios. In a Malaysian study, Khatib and Nour (2021) found the same outcome.

Several studies have been carried out to explore and assess the impact of the current pandemic on the financial performance of businesses in various industries. Some studies in the logistics and supply chain arena, such as Van Hoek (2020) and Ali et al. (2021) have focused on the industry's resilience. But there are few studies concentrated to analyse the impact of this pandemic on the financial performance of logistics firms. The study by Atayah et al. (2021) is the first attempt to undertake exploratory research into the influence of COVID-19 on the financial performance of logistics enterprises in G-20 countries. The result showed that the financial performance of logistic firms was significantly higher during 2020. Overall, the country-wise findings corroborated with the main results and the financial performance of 14 countries' logistic firms out of 20 ones analyzed has been significantly elevated, during the pandemic period. However, this paper has found out a negative financial performance of the logistics firms during the COVID-19 period in six countries (Germany, Korea, Russia, Mexico, Saudi Arabia, and the UK), which supports the second proposition.

In Vietnam, there are some papers about the impact of the pandemic on the performance such as The COVID-19 pandemic caused businesses to face major difficulties in terms of output, supply disruptions, financial difficulties, and unstable human resources. Up to now, there are very few studies on the impact of the COVID-19 pandemic on financial performance by quantitative research methods, especially about this issue in logistic enterprises. So that, this study aims to analyze the impact of the COVID-19 pandemic on these enterprises by quantitative methods.

According to the resource-based theory, a company's performance will be optimal if it has a competitive advantage that is difficult to copy and is firmly tied to its

characteristics. According to Sun et al. (2020), creating new competitive advantages for long-term development is vital to enable mining firms in China to recover from diverse adverse economic scenarios. In dealing with economic crises, competitive advantage is gained through employing, managing, and controlling owned resources, such as organizational processes and firm strategy. Resources that also need to be appropriately managed include assets, knowledge of technology, and human resources' ability to manage the company in various situations and conditions. It is essential to create a competitive advantage by creating products or services that have a high economic value that is difficult to imitate and even replace so that they become primary needs for society. The company's performance is highly dependent on management's ability to produce and manage unique and specific resources to compete and survive in various situations. Appreciation for employee performance is also one of the proven efforts to increase company productivity. This increase in productivity will undoubtedly have an impact on the ability of competitiveness and improve company performance.

The financial performance of a firm is a measure of its success in terms of revenue and overall operating costs, debt structure, assets, and investment returns. Stakeholders will pay attention to any changes in the company's financial performance, such as changes in the statement of financial position, profit or loss, or cash flow, therefore talks on financial performance are not restricted to one-period discussions. As a first step in meeting the information demands of internal and external parties, financial performance can be monitored through financial statement analysis in the form of interpretations of financial data summarized in financial reports. According to Fraser and Ormiston (2016), there are four types of financial ratios that can be used to assess a company's success. They are the liquidity ratio, which describes the company's ability to meet short-term liabilities (debt), the solvency ratio (leverage), which measures the extent to which the company's assets are financed with debt, the activity ratio, which assesses the company's ability to generate profits, and the profitability ratio, which assesses the company's ability to generate profits. Specifically:

The *profitability ratio* measures the company's ability to generate profits or measure the efficiency of the company. The most commonly measured profitability ratio is the return on assets (ROA), return on equity (ROE), return on sale (ROS). They show the measure of asset, equity, and revenue productivity in generating profit. These ratios are then projected into the future to see the company's ability to generate profits in the future.

The activity ratio assesses how well a corporation uses its assets to create revenue. The ratio of long-term activities to short-term activities can be classified into

two categories. According to Fraser and Ormiston (2016), the receivable turnover ratio, which is used to define working capital analysis since it can assess how rapidly a company's receivables transform into cash, is the ratio of short-term activities. The higher the receivable turnover, the greater the cash to be received and the greater the company's profits. On the other hand, the slower the receivable turnover, the less profitability the company gets (Notta & Vlachvei, 2014).

The *liquidity ratio* measures the company's ability to pay obligations that are due within one year. One of the ratios commonly used to measure liquidity is the current ratio. The current ratio is used to compare current assets to current debt. Managers will see the company's performance based on the profit from the operational activity carried out, in which a high current ratio value is better. However, if the current ratio value is too high, it is also not good because it shows the number of idle funds and reduces its ability to generate profits. The current ratio can assess the company's liquidity ability to manage its assets to meet its short-term obligations and ensure that it can continue its business in the future.

The *leverage ratio* measures the company's ability to pay off all of its obligations. This ratio can be measured using the debt-to-equity ratio (LEV). This ratio shows the issuer's capital structure consisting of debt and equity. It can also represent the solvency ratio showing the number of funds needed to cover all or part of the costs required. This ratio determines the company's ability to pay off not only short-term debt but also long-term debt. This ratio will be of concern to creditors, especially long-term creditors. The smaller the LEV value, the better the company's condition. Ideally, the company's amount of capital should be higher than the amount of debt.

Net income declined dramatically during the monetary crisis as people's purchasing power weakened and interest expenses rose, resulting in a major decrease in a company's profitability. When people's purchasing power falls, it has a direct impact on the company's overall sales. If a corporation's sales fall, its profit will decrease as well if the company is unable to reduce its operational costs. The findings of Istiningrum (2005) reveal that the profitability ratios of service firms before and after the monetary crisis, as assessed by returns on assets (ROA), varied significantly, with the average ratio decreasing. According to Rofiqoh (2001), during the crisis, public firms' financial performance on the Jakarta Stock Exchange declined in all sectors, particularly at the level of potential to make profits, as seen by a considerable reduction in ROA. Besides, Shen et al. (2020) showed that the COVID-19 pandemic has a significant negative impact on listed Chinese enterprises' performance due to a decrease in the value of total revenue, which affects

reducing ROA. The first hypothesis can be formulated as follows:

H1: *The COVID-19 pandemic has a negative effect on profitability.*

The current economic crisis in COVID-19 will have a negative impact on people's earnings, particularly those in the tourism and transportation industries. Because public financial governance would be focused on satisfying basic requirements, people's purchasing power will be reduced as community income falls. This situation will have a larger impact on the industrial sector, particularly in terms of sales numbers, as there will be no longer be any viable target market. Because buyers, service users, or customers lose their ability to pay debts to businesses during the economic downturn, the industrial sector faces a higher level of credit risk (Fridson & Alvarez, 2011). The decline in sales, which is not accompanied by a decrease in average receivables will certainly impact the decline in receivable turnover value. The high level of funds embedded in trade receivables will lead to a slow turnover of accounts receivable (Notta & Vlachvei, 2014). Therefore, the second hypothesis can be formulated as follows:

H2: *The COVID-19 pandemic has a negative effect on the activity ratio.*

The industrial sector's financial performance will almost likely be impacted by the economic downturn. The COVID-19 pandemic causes the decline in economic growth and led to an economic crisis which has an impact on decreasing people's purchasing power. As a result, many client receivables are non-collectible, causing the company's cash flow to suffer. However, when the economy worsened, many supplies began to accumulate. When the liquidity ratio is calculated using the current ratio, the liquidity ratio rises. The increase in the liquidity ratio is not a positive sign. Previous research has yielded mixed results when it comes to the impact of an economic downturn on the current ratio. Bintang et al. (2019) compared financial performance in the period before and after the monetary crisis, including the current ratio. The result of Istiningrum (2005) also shows that there was a significant decrease in a firm's liquidity ratios, measured using the current ratio, during the monetary crisis. Therefore, the third hypothesis can be formulated as follows:

H3: *The COVID-19 pandemic has a negative effect on liquidity.*

A significant decrease in sales in a crisis economy will certainly affect company profits and cash received on

cash sales transactions. Due to the lack of cash to make debt payments, this situation will have a significant influence on the company's capacity to pay its debts. Furthermore, the capital worth will decline as a result of the company's losses as a result of lower sales. Low sales revenue will inevitably diminish the company's ability to cover all operational expenditures, causing it to lose money. According to Istiningrum (2005), the global crisis has a negative impact on the leverage ratio, which is calculated using the debt-to-equity ratio (LEV). According to Rofiqoh (2001), an increase in the LEV number indicated a decline in the financial performance of public firms during the crisis compared to before the crisis. Hakim (2012) discovered that the LEV value differed significantly before and after the economic crisis. Also, a drop in the capital structure (equity) from management or investors due to concerns about the impact of the crisis on reducing firm profitability, which is particularly risky for shareholders, might cause an increase in LEV value. A reduction in the capital structure (equity) provided by management or investors can result in a reduction in operational effectiveness and efficiency, which has an impact on the company's overall performance. The fourth hypothesis can be formulated as follows:

H4: *The COVID-19 pandemic has a negative effect on leverage.*

3. Research Methodology

The research method used was the quantitative method. This study's secondary data was financial reports of 2019 and 2020 of Logistics enterprises listed on the Vietnam Stock Exchange. There are 140 logistics listed enterprises, but some enterprises don't have enough information to research. Then, the research sample includes 114 logistic listed enterprises on Ho Chi Minh, Ha Noi, and Upcom stock exchange.

The quantitative method was used, with a focus on descriptive statistics and analysis of several tests on the performance of logistic firms before and after the economic crisis caused by the COVID-19 pandemic. To decide which statistical tests would be used in the different tests, a data normality test was performed first. In a parametric statistical test, the data normality test is an obligatory prerequisite. If the data is not normally distributed, a nonparametric statistic, such as the Wilcoxon signed-rank test, might be used. SPSS 23 was used to analyze the data. Because the results of the Kolmogorov-Smirnov test indicated data samples not matching the typical normal distribution, the author used a nonparametric technique, the Wilcoxon Sign Rank test, to assess the difference in financial criteria before and during COVID-19 in this study.

4. Results and Discussion

The results of the descriptive analysis of 114 logistic enterprises' financial performance are shown in Table 1.

Table 1 shows that the average ROA value has decreased, indicating that the COVID-19 pandemic crisis has impacted the company's financial performance as measured by changes in the ROA value. Before the COVID-19 pandemic, the average ROA value was 6.21, but during the pandemic, the average ROA value was 4.29. The average value of ROA decreased by 1.92 from before to during the COVID-19 pandemic.

When measured against changes in the value of receivable turnover, performance appraisal will be different. When measured by changes in the value of receivable turnover, the COVID-19 pandemic crisis has had a negative influence on the company's financial performance. Before the COVID-19 pandemic, the average value of receivable turnover was 21.95, while the average value of receivable turnover during the COVID 19 pandemic was 18.52. Before the COVID-19

pandemic, the average value of receivable turnover decreased by 3.53 percent.

There is a slight difference in the average current ratio in logistic firms after the COVID-19 pandemic compared to before the COVID-19 pandemic. Before the COVID-19 pandemic, the average current ratio was 2.67, but during the COVID 19 pandemic, the average current ratio was 2.63. The current ratio decreased by 0.04 from before the COVID 19 pandemic to during the COVID-19 pandemic.

In comparison to before the COVID-19 pandemic, the average value of LEV increased following the COVID-19 pandemic. LEV had an average value of 0.86 before the COVID-19 pandemic, while it had an average value of 1.25 during the pandemic. When looking at fluctuations in the LEV value, this increase in average suggests that the COVID-19 pandemic has had a negative impact on the company's financial performance.

Table 2 shows the results of the Kolmogorov-Smirnov test for normalcy. The findings indicate that the research data was not regularly distributed, with significance values

Table 1: Descriptive Analysis Results

Indexes	N	Min	Max	Mean	Media	Std. Deviation
ROA_before COVID-19	114	-27.92	0.49	6.21	5.37	10.67
ROA_during COVID-19	114	-38.86	0.43	4.29	4.00	9.28
RTO_before COVID-19	114	0.14	860.43	21.95	6.30	89.95
RTO_during COVID-19	114	0.73	846.13	18.52	6.33	81.14
CR_before COVID-19	114	0.01	16.29	2.67	1.52	3.15
CR_during COVID-19	114	0.01	23.91	2.63	1.45	3.85
LEV_before COVID-19	114	-3.47	8.71	0.86	0.53	1.50
LEV_during COVID-19	114	-2.73	9.30	1.25	0.63	1.89

Note: ROA is the return on assets; RTO is receivable turnover; CR is the current ratio, LEV is the debt to equity ratio.

Table 2: Normality Test Results

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ROA_before COVID-19	0.189	114	0.000	0.816	114	0.000
ROA_after COVID-19	0.189	114	0.000	0.874	114	0.000
RTO_before COVID-19	0.413	114	0.000	0.191	114	0.000
RTO_after COVID-19	0.413	114	0.000	0.159	114	0.000
CR_before COVID-19	0.210	113	0.000	0.741	113	0.000
CR_after COVID-19	0.264	113	0.000	0.571	113	0.000
LEV_before COVID-19	0.243	113	0.000	0.777	113	0.000
LEV_after COVID-19	0.214	113	0.000	0.807	113	0.000

Table 3: Wilcoxon Signed-Rank Test Results

		N	Mean Rank	Sum of Ranks	Z-Statistic	Sig
ROA after compare to ROA before COVID-19	Negative Ranks	64 ^a	57.67	3691.00	-3.117 ^b	0.002
	Positive Ranks	40 ^b	44.23	1769.00		
	Ties	10 ^c				
	Total	114				
RTO after compare to RTO before COVID-19	Negative Ranks	68 ^a	59.29	4031.5	-2.132 ^b	0.033
	Positive Ranks	46 ^b	54.86	2.523.5		
	Ties	0 ^c				
	Total	114				
CR after compare to CR before COVID-19	Negative Ranks	53 ^a	58.55	3103.0	-0.177 ^b	0.859
	Positive Ranks	59 ^b	54.66	3125.0		
	Ties	1 ^c				
	Total	114				
LEV after compare to LEV before COVID-19	Negative Ranks	48 ^a	46.48	2231.0	-2.581 ^b	0.010
	Positive Ranks	63 ^b	63.25	2985.0		
	Ties	3 ^c				
	Total	114				

^aAfter < Before; ^bAfter > Before; ^cAfter = Before.

of 0.05 or 0.00 for each observation. As a result, a parametric statistical test could not be used to test the data. As a result, a nonparametric statistical test was used to compare financial performance ratios before and after COVID-19.

Table 3 displays the Wilcoxon Signed-Rank Test findings. They demonstrate that the financial performance of logistic firms differed before and after the COVID-19 pandemic.

The Wilcoxon signed-rank test results in Table 3 reveal that there is a significant difference in the values of ROA, RTO, and LEV before and after the COVID-19, as evidenced by the Asymp. 0.03 and 0.00 0.05 are significant (2-tailed) results. The CR, on the other hand, does not produce the same outcomes, as evidenced by the Asymp. Values of 0.859 (two-tailed) > 0.05. H3 is therefore refused, although H1,2 and H4 are approved.

Following the emergence of the COVID-19 pandemic, 64 firms had a fall in ROA value and 40 enterprises reported an increase in ROA value. The ROA of ten businesses, on the other hand, does not change between before and after the COVID-19.

According to the negative ranks at the N value of 64 and the positive ranks at the N value of 48, 68 firms saw a fall in receivable turnover and 46 enterprises witnessed an increase in receivable turnover after the COVID-19 pandemic. The present ratio's ties values are 0, indicating that the receivable turnover values are not the same before and after the COVID-19 pandemic.

Table 3 further reveals that during the COVID-19 pandemic, 48 enterprises had a fall in LEV value and 63 firms

had an increase in LEV value, as evidenced by the negative ranks at the N value of 48 and positive ranks at the N value of 63. There was no difference in LEV between before and after the COVID-19 for the three enterprises.

At the same time, the current ratio has a value of 1, indicating that only one firm had the same current ratio value before and during the COVID-19 pandemic, and the number of firms with increased CR is the same as the number of firms with reduced CR, implying that there is no difference in average between CR before and during the COVID-19 pandemic.

5. Conclusion and Recommendations

Many aspects of society were affected when the Coronavirus first appeared. The COVID-19 pandemic has put a strain on global manufacturing capacity and supply chains, and it is also the pandemic that has given up new opportunities for the logistics industry to grow as e-commerce has grown. This study found that the financial performance of 114 logistic firms listed on the Vietnam stock exchange has not improved. On the contrary, these businesses' performance, such as returns on assets, receivable turnover, and leverage, has decreased. The COVID-19 had a global impact on supply chains, therefore export activity and international transportation were badly hampered, with only a few domestic logistic enterprises growing.

Until now, many logistics service enterprises in Vietnam have responded to COVID-19 by taking several steps,

including reducing employee wages or working hours, cutting unnecessary costs, negotiating payment terms for input costs and other costs, downsizing production and business scale, digital transformation, and investing in technology and human resources. Tax incentives, reduced road expenses, port infrastructure fees, and worker support are among the options sought by the government and logistic associations to restore commercial operations. Hopefully, with numerous answers and effective pandemic-prevention measures, logistics companies will be able to quickly restore their commercial operations, regain momentum, and contribute to socio-economic development.

The study's limitation is that it did not look at how the COVID-19 pandemic affects the financial performance of each chain of activities in logistics companies. This is because some companies are only involved in a few stages of the supply chain and may not be as affected as others. As a result, the study's findings are based on the average financial performance of businesses. Furthermore, the inspection may only be carried out until 2020, when the COVID-19 pandemic begins to reach Vietnam through the first and second occurrences; the impact of COVID-19 during these periods is not as severe as it will be during the third and fourth occurrences in 2021.

References

- Al-Mansour, J. F., & Al-Majmi, S. A. (2020). Coronavirus COVID-19: Supply chain disruption and implications for strategy, economy, and management. *The Journal of Asian Finance, Economics and Business*, 7(9), 659–672. <https://doi.org/10.13106/jafeb.2020.vol7.no9.659>
- Ali, M., Rhaman, S. B., & Frederico, G. F. (2021). Capability components of supply chain resilience for readymade garments (RMG) sector in Bangladesh during COVID-19. *Modern Supply Chain Research and Applications*, 6, 15. <https://doi.org/10.1108/MSRA-06-2020-0015>
- Atayah, O. F., Dhiaf, M. M., Najaf, K., & Frelevico, G. F. (2021). Impact of COVID-19 on the financial performance of logistics firms: Evidence from G-20 countries. *Journal of Global Operations and Strategic Sourcing*, 11(1), 28. <https://doi.org/10.1108/JGOSS-03-2021-0028>
- Bintang, F. M., Malika, A., & Afifudin, K. (2019). Effect of previous year's audit opinion, debt default, liquidity ratio, leverage ratio ongoing concern audit opinion. *E-JRA*, 8(10), 98–115. <http://riset.unisma.ac.id/index.php/jra/article/view/4387>
- Devi, S., Warasniasih, N. M. S., Masdiantini, P. R., & Musmini, L. S. (2020). The impact of COVID-19 pandemic on the financial performance of firms on the Indonesia stock exchange. *Journal of Economics, Business, & Accountancy Ventura*, 23(2), 226–242. <https://doi.org/10.14414/jebav.v23i2.2313>
- Fraser, L. M., & Ormiston, A. (2016). *Understanding financial statement* (11th ed.). London, UK: Pearson.
- Fridson, M. S., & Alvarez, F. (2011). *Financial statement analysis: a practitioner's guide* (Vol. 597). New York: John Wiley & Sons.
- Istiningrum, A. A. (2005). Comparison of financial performance of service companies listed on the Jakarta stock exchange before and during the monetary crisis. *Jurnal Pendidikan Akuntansi Indonesia*, 4(1), 117–33. <https://doi.org/10.21831/jpai.v4i1.1776>
- Hadiwardoyo, W. (2020). National economic loss due to the COVID-19 pandemic. *Baskara Journal of Business & Entrepreneurship*, 2(2), 83–92. <https://jurnal.umj.ac.id/index.php/baskara/article/view/6207>
- Hakim, L. (2012). Efficiency level study: comparison of company size and the effects of the economic crisis. *Jurnal Ilmu Manajemen dan Akuntansi Terapan*, 3(1), 1–11. <http://jurnal.stietotalwin.ac.id/index.php/jimat/article/view/3128>
- Khatib, S. F. A., & Nour, A. N. I. (2021). The impact of corporate governance on firm performance during the COVID-19 pandemic: evidence from Malaysia. *The Journal of Asian Finance, Economics and Business*, 8(2), 943–952. <https://doi.org/10.13106/jafeb.2021.vol8.no2.0943>
- Notta, O., & Vlachvei, A. (2014). The impact of the financial crisis on firm performance in the case of Greek food manufacturing firms. *Procedia Economics and Finance*, 14, 454–460. [https://doi.org/10.1016/S2212-5671\(14\)00734-5](https://doi.org/10.1016/S2212-5671(14)00734-5)
- Rababah, A., Al-Haddad, L., Sial, M. S., Chunmei, Z., & Cherian, J. (2020). Analyzing the effects of COVID-19 pandemic on the financial performance of Chinese listed enterprises. *Journal of Public Affairs*, 20(4), e2440. <https://doi.org/10.1002/pa.2440>
- Rofiqoh, I. (2001). The effect of the monetary crisis on the performance of public companies on the stock exchange Jakarta. *Jurnal Akuntansi dan Investasi*, 2(2), 87–104. <https://journal.umy.ac.id/index.php/ai/article/view/618>
- Shaik, A. R. (2021). COVID-19 pandemic and the reaction of Asian stock markets: Empirical evidence from Saudi Arabia. *The Journal of Asian Finance, Economics and Business*, 8(12), 1–7. <https://doi.org/10.13106/jafeb.2021.vol8.no12.0001>
- Sun, Y., Yang, Y., Huang, N., & Zou, X. (2020). The impacts of climate change risks on the financial performance of mining industry: Evidence from listed companies in China. *Resources Policy*, 69, 101828. <https://doi.org/10.1016/j.resourpol.2020.101828>
- Shen, H., Fu, M., Pan, H., Yu, Z., & Chen, Y. (2020). The impact of the COVID-19 pandemic on firm performance. *Emerging Markets Finance and Trade*, 56(10), 2213–2230. <https://doi.org/10.1016/j.resourpol.2020.101828>
- Van Hoek, R. (2020). Research opportunities for a more resilient post-COVID-19 supply chain – closing the gap between research findings and industry practice. *International Journal of Operations and Production Management*, 40(4), 341–355. <https://doi.org/10.1108/IJOPM-03-2020-0165>
- VCCI. (2020). *Report on the impact of the COVID-19 pandemic on Vietnamese businesses: Some key findings from the enterprise survey 2020*. <https://www.adb.org/vi/news/viet-nam-economy-slow-down-COVID-19-adb-bullish-economic-growth-medium-longer-term>