

THE IMPACT OF COVID-19 AND GOVERNANCE POLICY RESPONSES TO THE BUSINESS PERFORMANCE: EVIDENCE OF AN EMERGING MARKET

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Abstract

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The COVID-19 pandemic has been proven to have a negative impact on the business performance in the economy (Hu & Zhang, 2021). The article studies the influence of COVID-19 and governance policies on the performance of businesses based on data collected from the audited financial reporting system of 30 companies listed on the Vietnam Stock Exchange (VNX). This study uses the generalized least squares (GLS) and the research results show that gross domestic product, governance policy responses, the leverage ratio, and the current ratio have a positive and statistically significant impact on business performance. Meanwhile, the number of COVID-19 cases has opposite and statistically significant effects on the firm's performance. In addition, the study pointed out that there is no evidence of the impact of the firm's operating time and the consumer price index on the business's performance. The research results lead to recommendations for the government and businesses to find the best policy to increase the firm's performance and to withstand the pandemic.

Keywords: Business Performance, COVID-19, Governance Policy Responses

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1. INTRODUCTION

In Vietnam, firms affected by COVID-19, with a huge impact on their business activities, accounted for 39.5% (National Economics University & Japan International Cooperation Agency, 2020, p. 16). The pandemic had a huge impact on all sides of the socioeconomics: 1) causing disruptions to supply

chains and trade flows, 2) stagnation of production, business, and service activities, and 3) direct impacts on export and import industries, aviation, tourism, accommodation services, food and beverage, healthcare, education, labor, and employment. This led to the downfall of many businesses from scaling down the business to terminating their corporate. Vietnam Chamber of Commerce and

Industry (VCCI) and World Bank (2021) stated that COVID-19 affects businesses in Vietnam in many ways. Most of the firms claimed that COVID-19 had prevented them from gaining access to customers, followed by the impact on cash flow and, finally, the problem of labor and employees of the business. Vietnam has been implementing synchronous solutions to recover the economy after the pandemic in the fastest and most effective way, and the main tools to do so are by applying policies given out by the government to support businesses in overcoming the pandemic. Facing COVID-19's challenge, the government of Vietnam has issued and implemented many policies that bring practical effects to businesses.

There are several studies have examined the effects of the COVID-19 pandemic (Bartik et al., 2020; Begum et al., 2023; Harel, 2021; Guerini et al., 2020; Muzi et al., 2023; Kristiana et al., 2021; Putra, 2024) and the government's response on business performance (Auerbach et al., 2020; Coccia, 2022; Dongyang, 2021; Makin & Layton, 2021). Studies in different countries yield varying results, each reflecting the unique feature of the respective nation. Meanwhile, related studies in developing nations like Vietnam are still limited, leading to a research gap that needs to be addressed. Our research aims to analyze the effects of the COVID-19 pandemic and the government's policies that have been issued to support businesses' performance in Vietnam. In particular, we apply the generalized least squares (GLS) method to explore the impact of monetary policies and fiscal policies on the return on equity (ROE) and return on assets (ROA) of 30 companies listed on the Vietnam Stock Exchange (VNX) during the periods from the fourth quarter of 2019 to the first quarter of 2022. We find that the COVID-19 pandemic had a negative impact, and the government's policies during the COVID-19 pandemic, including monetary policies and fiscal policies, have a positive impact on Vietnamese business performance. Based on the results, we propose some recommendations related to supporting policies for businesses.

The rest of the paper is organized as follows. Section 2 provides a literature review on the impact of the COVID-19 pandemic on business and the impact of government policies on business performance. Section 3 presents the research methodology while Section 4 overviews and discusses the results. Section 5 concludes our study.

2. LITERATURE REVIEW

2.1. Impact of the COVID-19 pandemic on businesses

According to VCCI and World Bank (2021), almost all businesses in the world have been affected by COVID-19, but performance varies even within countries and industries. According to Bartik et al. (2020), many businesses have temporarily closed, most of these closures because of COVID-19. Having the same results, many authors explain that less productive firms have a lower profitability of the business (Begum et al., 2023; Muzi et al., 2023; Putra, 2024). The main reason is the decrease in consumer demand as well as employee health concerns, especially due to supply chain disruptions. Apedo-Amah et al. (2020) state that one of the first short-term effects of COVID-19 is financial concerns (especially about liquidity), so smaller companies face disproportionately greater financial constraints.

Meanwhile, the impact of the COVID-19 crisis may be heterogeneous, so micro and large businesses may experience more solvency issues, while small and medium-sized businesses show lower insolvency rates (Guerini et al., 2020). According to Apedo-Amah et al. (2020, p. 7) show that the company's sales fell more than 70% around the peak of the crisis (as measured by the steepest drop in Google Mobility) and are still 40% below last year's levels, even a few months later. Kristiana et al. (2021) argue that empirical studies have shown that the COVID-19 crisis causes inactivity in the tourism sector; its stakeholders, consumers, and workers move to other economic sectors and look for alternative occupations. Besides, during the COVID-19 outbreak, the competitive position cannot aid enterprises in attaining their objective of increasing firm value.

However, some studies have reached different conclusions. Harel (2021) believes that although COVID-19 has far-reaching impacts in all areas of life, the revenue of the smallest businesses in the industrial sector has not been adversely affected. Most do not change or adjust their business activities. Research also shows that most of the revenue of small businesses comes from subcontracting, working for other businesses, and from long-term agreements. They have also been better able to cope in difficult economic times and uncertain economic conditions. In addition, businesses operating in the international market have successfully adapted their activities to changing needs and trade restrictions. Borino et al. (2021) mention the flexibility and adaptability of international companies when facing COVID-19 than their counterparts. They are unlikely to be shut down and more likely to have the ability to apply measurements to resume production. During the pandemic, companies have rapidly adopted digital technologies to solve problems related to production and supply chain management (Kuriakose & Tran, 2020), leading to the expected digitization (Kraus et al., 2020). Wang (2023) states that the pandemic's emergence impeded monetary policy transmission, business practices, and financial markets in 37 Asian markets.

2.2. Government policies during the COVID-19 pandemic and impact on businesses' performance

During the COVID-19 pandemic, the government can introduce policies to support the growth of new technologies, products, and solutions that have a positive impact on business performance (Okpara, 2011). However, it seems that the government can also hinder the performance of enterprises when they introduce policies that can limit autonomy, as well as the freedom to do business in some areas. Dongyang (2021) states that fiscal policies can significantly improve the performance of enterprises through alleviating financial constraints. Meanwhile, fiscal relief is mainly supply-oriented, aiming to stabilize production through tax cuts (Makin & Layton, 2021), and the effectiveness of fiscal policies depends on the degree of inequality and the overall distribution of the firm's cost of capital and revenue (Auerbach et al., 2020). Therefore, inequality harms output, while reducing the effects of demand-side fiscal stimulus. All countries have some weaknesses, and no country is prepared to cope with a major epidemic or pandemic. Coccia (2022) states that all countries have some weaknesses and no country is fully prepared for an epidemic or pandemic.

Domestic and foreign studies have contributed to the theoretical and practical basis of policy responses as well as support for government policies on the economy, and its effects on businesses. However, in Vietnam, according to our research, few studies have implemented a quantitative model to analyze the impacts of support policies on Vietnamese enterprises. Although there are still many difficulties in conducting a research paper on Vietnam, we still choose to study the impact of COVID-19 and the government's support policies on enterprises that are listed on the stock market.

Unlike previous studies, which only evaluated specific industries, the research will use quantitative methods to quantify the impact of the government's policies on enterprises through business performance indicators. From there, we propose recommendations in line with the fiscal and monetary policy mechanisms to help businesses overcome difficulties during COVID-19.

3. RESEARCH METHODOLOGY

3.1. Data

To measure the impact of COVID-19 and government policy responses on the efficiency of businesses during the COVID-19 period, our group has compiled a dataset including 30 businesses listed on the VNX (see Table A.1. in Appendix). The data are aggregated from the last quarter of 2019 to the first quarter of 2022. The reason for choosing such a study period is to determine whether there is a structural change between the early period of COVID-19 and the end periods of COVID-19.

The authors collect data on companies through financial statements, and searches on software to screen and select companies affected by the pandemic, from which to extract the corresponding stock code of each company and industry respective companies and industries. This database will provide insights into the impact of policies by maximizing the comparability of data across businesses and across time.

3.1.1. Dependent variables

The research aims to understand the impact of COVID-19 and supporting policies on business performance. To measure business performance, the topic will use the *ROA* and *ROE* ratios as a representation of the performance of the business.

3.1.2. Independent variables

Number of COVID-19 cases (*CASE*). The independent variable is Vietnam's newly reported COVID-19 cases. Recent research reported that the COVID-19 pandemic indirectly affects entrepreneurial intention via perceived serious hazards (Hernández-Sánchez et al., 2020). Additionally, El Bassioni's (2022) research results indicate that the number of COVID-19 cases and the severity index negatively affect the profitability of listed companies in the Middle East and North Africa (MENA) region. Indeed, the empirical analysis shows that the COVID-19 pandemic significantly negatively impacts the *ROA* of companies listed on the Stock Exchange of Pakistan (Imran et al., 2021).

Policy (*POL*). The nature and scope of government policies have an immediate effect on the performance of firms (Organization for Economic Co-operation and Development [OECD], 2020). Based on the theoretical and empirical studies from Eniola and Ektebang (2014) and Okpara (2011), the government can develop policies to support the growth of new technologies, products, and solutions that positively impact business performance. Thus, fiscal policy can create conditions to promote economic growth and improve the performance of enterprises (Bloom et al., 2020). Dongyang (2021) argues that fiscal support can significantly improve the performance of enterprises, including *ROA* and *ROE*. Bernanke and Kuttner (2005) also argue the most direct and immediate impact of monetary policy, such as changes in the fund rate, influences asset prices and returns, so policymakers attempt to modify economic behavior in ways that will help achieve their ultimate goals. In addition, fiscal stimulus is mainly aimed at the demand side of the economy, by increasing aggregate spending to help reverse an unexpected downturn in the economy. Meanwhile, fiscal relief is mainly supply-oriented, aiming to stabilize production through tax cuts (Makin & Layton, 2021).

However, the impact of government policies to combat COVID-19 on the market found that it was only when Italy's total number of COVID-19 infections began to increase that stock market returns stocks began to decline. Furthermore, Scherf et al. (2022) were able to examine governments' responses to the spread of COVID-19 and found that social shutdown restrictions lead to negative stock market returns.

3.1.3. Control variables

Our team decided to incorporate control variables such as liquidity, leverage, and operating date to avoid being mistaken for the association between the error and the dependent, independent variables. The liquidity ratio is used to locate the company's ability to pay short-term obligations with a maturity of within a year. The components of the current coefficients are taken from the financial statements of 30 companies listed on the VNX; the data is taken from the fourth quarter of 2019 to the first quarter of 2022, with some exceptions in some cases where enterprises have not yet reported financial statements for the first quarter of 2022.

Leverage ratio (*LEA*). The leverage ratio measures a company's ability to pay all of its obligations. According to Devi et al. (2020), the increase in the debt-to-equity (*D/E*) ratio during the COVID-19 period decreased business efficiency, thereby causing the inverse trend between *D/E* and *ROE*, *ROA*.

Solvency ratio (*TTT*). The solvency ratio measures a company's ability to pay its obligations within one year. According to Devi et al. (2020), an economic crisis can make a company face liquidity difficulty in the event of COVID-19. Declining economic growth reduces people's purchasing power.

Operated years (*AGE*). Research by Chander and Aggarwal (2008) shows that the positive influence of the business's operating time on profitability is that the longer the business, the more profitable it is. The larger the business, the greater the profit potential.

Gross domestic product (*GDP*). Measured by the national economic growth indicator, *GDP* shows a business's development potential in the economy.

Bolek and Wiliński (2012) show the impact of GDP on the profitability of enterprises in Warsaw for 10 years from 2000. Their research results have shown that the GDP growth rate has a positive influence on the firm's ROA.

Consumer price index (CPI). The inflation rate shows the government's ability to manage the economy, when the inflation rate increases, the debt ratio of enterprises will decrease.

Model 1

$$ROA_{i,t} = \alpha + \beta_1 + GDP_{i,t} + \beta_2 * CPI_{i,t} + \beta_3 * LEA_{i,t} + \beta_4 * TTT_{i,t} + \beta_5 * AGE_{i,t} + \beta_6 * CASE_{i,t} + \beta_7 * CASE * POL_{i,t} + \mu_{i,t} \quad (1)$$

Model 2

$$ROE_{i,t} = \alpha + \beta_1 + GDP_{i,t} + \beta_2 * CPI_{i,t} + \beta_3 * LEA_{i,t} + \beta_4 * TTT_{i,t} + \beta_5 * AGE_{i,t} + \beta_6 * CASE_{i,t} + \beta_7 * CASE * POL_{i,t} + \mu_{i,t} \quad (2)$$

Table 1. Descriptive table of variables

Variables	Acronyms	Measurement	Expected value
Dependent variable			
Return on asset	ROA	Net income / Total assets	
Return on equity	ROE	Net income / Total equity	
Independent variable			
Number of COVID-19 cases	CASE	Data source from World Bank (2019-2022)	-
Policy	POL	Number of COVID-19 cases * Policy	+/-
Control variables			
Leverage ratio	LEA	Total liabilities / Total equity	-
Solvency ratio	TTT	Current asset / Current liabilities	-
Operated time	AGE	Data source from the financial statements of the business (2019-2022)	+
Gross domestic product	GDP	Data source from World Bank (2019-2022)	+
Consumer price index	CPI	Data source from World Bank (2019-2022)	+/-

Source: Authors' elaboration.

The data of the study has a combination of space and time, so the regression method and panel data are suitable methods to be applied to the research. Regression analysis based on panel data can use three following models for research, including the pooled ordinary least squares regression, the fixed effects model (FEM), and the random effect model (REM).

Our group uses the Hausman test to consider whether the FEM or REM model is more suitable because it considers whether there is a correlation between the independent variables or not. After selecting a suitable model, the study uses tests to

3.2. Research models

Based on the experimental results and model of El Bassioni (2022) and Hu and Zhang (2021), the research model to analyze the impact of COVID-19 on businesses during the period from the fourth quarter of 2019 to the first quarter of 2022 as follows:

ensure that the model does not have defects (by the GLS model). On the other hand, dynamic generalized method of moments (GMM) regression techniques can be employed to confirm that the results are resilient to endogeneity problems.

4. RESULTS AND DISCUSSION

Table 2 summarizes the regression results of the Models 1 and 2 by applying the GLS research methods.

Table 2. Inspection table GLS (ROA/ROE)

Variables	Research methods			
	Model 1		Model 2	
	Coefficient	p-value	Coefficient	p-value
GDP	69.4985*	0.000	98.08443*	0.000
CPI	434.4058**	0.028	657.187*	0.006
LEA	0.2311992*	0.000	0.2097556*	0.000
TTT	6.121716*	0.000	1.915777	0.249
AGE	-0.105303	0.221	-0.0723031	0.518
CASE	-1.586581*	0.004	-2.116434*	0.002
POL	0.629016**	0.032	0.9249266*	0.009
_cons	-2319.575*	0.001	-3289.919*	0.000

Note: * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

Source: Authors' elaboration.

The POL variable is calculated by using the CASE variable multiplied by the number of policies. The positive and statistically significant impact coefficient of the POL variable during the COVID-19 period reflects that the supportive policies have the means to reduce the negative impact of COVID-19 on business performance. Hu and Zhang (2021) make a similar statement, pointing out that good policies can help reduce

the devastating impact of COVID-19 on businesses around the world. In addition, the group's results are consistent with the research results of Dongyang (2021), which stated that fiscal policy can improve the performance of enterprises by using indicators such as ROA and ROE. Thus, the results also show that supportive policies can promote economic growth and improve the performance of enterprises. Therefore, it is not possible to guarantee that

the government's supportive policies will completely be able to resist the negative effects of COVID-19 on businesses because no country in the world can fight back against the adverse effects of COVID-19 by implementing current chains. However, maintaining and developing supportive policies will still offset the negative impact of COVID-19 on business performance.

The government in Vietnam has issued many fiscal and monetary policies to stimulate Vietnam's economy and business VCCI and World Bank (2021). For fiscal policy, it has policies on exemption, reduction, extension of time limit for payment of corporate income tax, value-added tax, land rent, import tax on goods; public investment support; the policy of reducing the collection rate for many types of fees to help businesses find it useful to adjust their assets, and partially remove the burden of fees. During the pandemic period, income was not stable, so when the policy was introduced, it can be seen that the problem of fees related to income, revenue, and import of raw materials used for production was removed. As for monetary policy, there are policies on debt restructuring policy, loan interest exemption/reduction to support businesses and refinancing. In business activities, a large part of enterprises' assets is short, medium, and long-term loans from commercial banks and state banks, so when applying monetary policy, enterprises will be able to extend the loan period, borrowing at a low interest rate or extending the loan term, this makes it possible for the business to maintain operations if the low turnover is not enough to pay the bank. Access to support packages is still difficult. However, the government has launched many policies for businesses to refer to in a variety of ways so that the policy is suitable for the conditions and needs of businesses. From there, support businesses to overcome difficulties, especially in financial terms, to improve operational efficiency during the pandemic.

Regarding other factors on business performance, the results show that *GDP* and *CPI* positively impact profitability (*ROA*, *ROE*) on business performance and have statistical significance at 10%. Expected *GDP* and research by Bolek and Wiliński (2012) positively impact *ROA*, so the author's results are consistent with the study. Therefore, during the COVID-19 period, when the *GDP* growth rate is high, consumers' income increases, leading to the need to spend more. For that reason, businesses will have a more favorable business, and profitability will also be increased.

For the variable *LEA*, it has a positive sign and is statistically significant. Our group showed a difference in the expected sign compared to the results of Devi et al. (2020). This means that the more debt a business uses, the more its value increases. The results of this study receive consensus from the study of Mahakud and Misra (2009), and Gürbüz et al (2010) and show a different view when proving that leverage will reduce firm value. The variable *TTT* also gives different results than expected. The sign of this variable is in contrast with the study of Abdul Rahman (2017) and the results of Isshaq et al. (2009) that our group investigated.

5. CONCLUSION

The current study examines the impact of the COVID-19 pandemic and governance policies

on the performance of businesses in Vietnam. The paper confirms the negative impact of the COVID-19 pandemic on business performance in Vietnam. Besides, governance policy responses, including monetary policies and fiscal policies, have a positive and statistically significant impact on business performance in Vietnam.

Based on the result of the impact of the COVID-19 pandemic on business operations and the impact of policies on business, there is several recommendations would be raised to improve business performance as below:

Macro-environment recommendation group. The government should focus on maintaining macroeconomic stability by all measures, and closely follow the situation and developments of the domestic and foreign markets to ensure large balances, not to be passive or surprised. Ministry of Finance: continue to review, evaluate, arrange, and restructure the tasks and needs of state budget spending. Strictly organize the management of state budget expenditure. State Bank: ensuring the safety of banking operations and handling bad debts. It is necessary to study early sets of macroprudential policy tools to prevent and limit risks to the financial system, thereby developing a roadmap to prepare and implement macroprudential tools and continue to develop an analytical framework on financial stability and macro-prudential through building a database system, macro-prudential indicators, systems of systematic risk indicators, solutions of vulnerable economies.

Recommendations for enterprises. Through the study from tables, we see the impact of *TTT* and *LEA* on positively affecting business performance. Enterprises need to improve their financial situation by increasing short-term assets and settling debts at maximum, thereby creating a premise to improve operational efficiency. Therefore, businesses need to build a debt collection and management process, classify customers and apply payment discounts as well as different repayment periods; perform detailed tracking of receivables, classify debts in detail by debt size and debt duration, regularly update payment status and compare debts with customers, urging recovery for long-standing, long-term and binding debts debt collection for sales staff and debt accountants.

An enormous uncertainty shock stemming from the advance shock of the COVID-19 pandemic heightened in 2020. The performance of many corporations is the key potential for the prosperity of the economy. For that reason, we examine how COVID-19 and the government's policy affect corporate performance. We have some conclusions by using the quarterly data of 30 firms from the fourth quarter of 2019 to the first quarter of 2022. Besides the green effect of *GDP*, *POL*, *LEA*, and *TTT* on the performance of firms, *CASE* had a negative side on the performance of businesses. Surprisingly, the *CPI* and the *AGE* don't have any relatable or statistical significance.

Through the process of the group implementing the research model, the total number of enterprises only stopped at 30, so in the future, the goal and direction of the group is to expand the scale of the research paper. In addition, there are limitations, supporting policies are currently viewed as a whole, taking into account the interaction and mutual support of policies, but not yet measuring the impact of individual policies. Specific policies and groups of policies. In addition, there are many

policies that the group has not been able to access and have not fully exploited, and there are positive impacts they bring to businesses in the context of COVID-19, with the hope that in the future,

the study can expand both the scope of enterprises and policies to bring about the most comprehensive results on the impact of each policy on the performance of each enterprise in the region.

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APPENDIX. NAMES OF JOINT STOCK COMPANIES

No.	Company name
1	BamBoo Capital Group Joint Stock Company
2	Dong A Hotel Group Joint Stock Company
3	Vietjet Aviation Joint Stock Company
4	Ocean Group Joint Stock Company
5	Dat Xanh Group Joint Stock Company
6	Novaland Group Joint Stock Company
7	Investment and Development of Da Nang Houses Joint Stock Company
8	CEO Group Joint Stock Company
9	VINGROUP Joint Stock Company
10	Phat Dat Real Estate Development Investment Joint Stock Company
11	Vincom Retail Joint Stock Company
12	CTCP Vinhomes Joint Stock Company
13	FLC Group Joint Stock Company
14	Vietnam Airports Joint Stock Company
15	Vietnam Airlines Joint Stock Company
16	Taseco Air Services Joint Stock Company
17	Saigon Cargo Services Joint Stock Company
18	Gemadept Joint Stock Company
19	Vietnam Container Joint Stock Company
20	Investment and Development of Dinh Vu Port Joint Stock Company
21	Hai Phong Port Joint Stock Company
22	Hai An Transport and Stevedoring Joint Stock Company
23	Dam Sen Water Park Joint Stock Company
24	International Product Transport Joint Stock Company
25	Hanoi Railway Transport Joint Stock Company
26	Investment in Tourism and Fisheries Development Joint Stock Company
27	Viet Tien Son Real Estate Joint Stock Company
28	VITECO Telecommunications Technology Joint Stock Company
29	Vietnam Transportation and Marketing Tourism Joint Stock Company
30	Thanh Thanh Cong Tourism Joint Stock Company