The Impact of Financial Ratios on Corporate Performance in Southeast Asia: A Comparison of Pre- and Post-COVID-19 Pandemic

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ABSTRACT

This study aims to analyze the impact of financial ratios on corporate performance in Southeast Asia before and after the COVID-19 pandemic. This research uses secondary data obtained from the annual financial statements of companies listed in Indonesia, Malaysia, and Singapore during the 2019–2023 period. The method used is panel data regression with a Random Effect model, which was selected based on the results of the Hausman and Lagrange Multiplier tests. The results indicate that the Debt Ratio (DR) and firm size have a significant negative impact on financial performance, measured by Return on Assets (ROA). Meanwhile, the Current Ratio (CR) does not show a significant effect on ROA. Additionally, the findings also suggest that the COVID-19 pandemic negatively impacted corporate performance during the period, but there was no significant difference in performance post-pandemic. This research provides valuable insights for corporate managers and policymakers to formulate more effective financial strategies in the face of global crises.

Keywords: *Financial Ratios, Corporate Performance, COVID-19 Pandemic, Panel Data Regression, Southeast Asia*

INTRODUCTION

The COVID-19 pandemic has had a significant impact on various sectors of the global economy, including Southeast Asia. Companies that were previously able to operate stably in competitive markets are now faced with new challenges in terms of operations, finances, and social aspects. As a result, corporate performance experienced a sharp decline, which was reflected in various financial ratios such as profitability, liquidity, and solvency. This decline has affected not only large companies but also small and medium-sized enterprises (SMEs), which are the backbone of many Southeast Asian economies. Therefore, it is important to analyze how changes in financial ratios can affect corporate performance before and after the COVID-19 pandemic.

Before the pandemic, financial ratios were commonly used by investors and other stakeholders to assess corporate performance and future prospects. As uncertainty increased due to the pandemic, financial ratios became a primary indicator to evaluate a

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company's resilience and ability to adapt to the economic crisis. According to previous studies, various factors such as firm size (Purnama & Nurdiniah, 2019) and capital structure (Safarida, Irawati & Kamal, 2023) can affect corporate performance in different contexts. However, there has been no research that specifically compares the impact of financial ratios on corporate performance before and after the COVID-19 pandemic, especially in Southeast Asia, which has diverse economic characteristics (Naseer, 2013; Nasution & Yusleny, 2023; Olanrewaju et al., 2025).

This study is important to provide deeper insights into how the COVID-19 pandemic has affected the relationship between financial ratios and corporate performance (Purnama & Nurdiniah, 2019; Rahmah Fadillah et al., 2024). By understanding these changes, stakeholders such as corporate managers, investors, and regulators can better respond to the challenges faced by companies and formulate appropriate policies to support post-pandemic economic recovery. Additionally, this study can contribute to the literature on the impact of financial ratios on corporate performance in Southeast Asia, especially in the context influenced by global crises such as the COVID-19 pandemic (Issa, Alabi & Ubandawaki, 2025).

The primary objective of this study is to analyze the impact of financial ratios on corporate performance in Southeast Asia before and after the COVID-19 pandemic. This research aims to compare the effects of liquidity and solvency ratios on corporate profitability between the pre-pandemic and post-pandemic periods. Thus, this study aims not only to determine whether there has been a significant change in the impact of financial ratios on corporate performance, but also to identify factors influencing this relationship in a broader context.

The research question addressed in this study is: How do financial ratios affect corporate performance in Southeast Asia before and after the COVID-19 pandemic? This study will identify the factors that influence these differences and explore how the characteristics of each Southeast Asian country can affect the results. With this approach, this study aims to provide a more holistic understanding of the changes in the relationship between financial ratios and corporate performance, and their implications for economic policy in this region.

This research is not only focused on theoretical aspects but also on practical applications, where the findings can be used to formulate better business strategies post-pandemic. Furthermore, the results of this study are expected to provide insights for academics, business practitioners, and policymakers in responding to the challenges faced by companies in Southeast Asia amid rapid economic changes.

LITERATURE REVIEW

Agency Theory and Capital Structure

Agency Theory is a significant theory in management and finance that explains the relationship between owners (principals) and managers (agents) within a company. This theory was first introduced by Berle and Means (1932) and further developed by Jensen and Meckling (1976), stating that conflicts of interest between shareholders (principals) and managers (agents) can lead to costs known as "agency costs". These costs arise due to the misalignment of interests between the owners, who wish to maximize company wealth, and the managers, who are more inclined to maximize their personal interests, such as increasing their salary or maintaining their power in the company. Conflicts can also arise between shareholders and creditors, where shareholders may take riskier investments, while creditors prefer stability in debt repayments (Jensen & Meckling, 1976).

As the agency theory has developed, it is important to consider how agency problems affect a company's capital structure. Capital structure is the combination of equity and debt used by a company to finance its operations (Parlina & Maiyaliza, 2023; Polyzos et al., 2021). In this context, agency theory provides an explanation for how debt can reduce agency problems. Debt can mitigate agency problems because it pressures managers to generate sufficient income to meet debt obligations, thus reducing the cash flow available

for managers to use in unprofitable projects (Jensen, 1986). Therefore, the use of debt is considered to help reduce agency costs; however, excessive debt can also increase bankruptcy costs and other agency-related expenses (Jensen & Meckling, 1976).

Financial Ratios and Profitability

Financial ratios are important tools for analyzing a company's financial performance. One of the main aspects measured using financial ratios is profitability, which describes the company's ability to generate profits from its business operations. Commonly used profitability ratios include Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), and Gross Profit Margin (GPM). Each of these ratios provides a deeper insight into how effectively a company manages its assets and capital to achieve profits (Liang et al., 2024; Likuayang & Matindas, 2021).

Return on Assets (ROA) is a ratio that measures a company's efficiency in using its assets to generate profits. This ratio is calculated by dividing net income by total assets (Nasution & Yusleny, 2023). A company with a high ROA indicates that it is effectively utilizing its assets to generate profits. Conversely, a decrease in ROA may indicate that a company is not managing its assets well, which negatively impacts profitability. For example, PT Unilever Indonesia Tbk saw a significant decrease in ROA from 0.35% in 2019 to 0.07% in 2023, indicating a decline in the company's asset efficiency in generating profits (Fadhillah et al., 2024).

Return on Equity (ROE) measures a company's ability to generate profit from equity invested by shareholders. This ratio shows how much profit is generated from the equity capital provided by shareholders. A high ROE indicates that the company is able to generate significant profits with relatively little capital. However, a decline in ROE could indicate poor management of equity. For instance, PT Unilever Indonesia saw significant fluctuations in ROE, with a sharp decline in 2023, signaling the company's inability to effectively utilize equity to generate profits (Fadhillah et al., 2024).

Net Profit Margin (NPM) is a ratio that measures the amount of net profit generated from each unit of sales. This ratio is important for assessing how efficiently a company manages its costs and generates profits from its sales. The higher the NPM, the more efficient the company is in managing its costs and increasing profit. A decrease in NPM, as seen in PT Unilever Indonesia, where NPM dropped from 0.17% in 2019 to 0.13% in 2023, indicates a decrease in the company's ability to manage operational costs and enhance profitability from sales (Nasution & Yusleny, 2023; Fadhillah et al., 2024).

Gross Profit Margin (GPM) measures the amount of gross profit generated by the company from each unit of sales before operating costs and taxes. A high GPM indicates that the company has good control over production costs and can generate substantial profits from the sale of goods or services. A decrease in GPM, as observed in PT Unilever, where GPM decreased from 0.23 in 2019 to 0.21 in 2020, suggests that the company faced challenges in maintaining profit margins from its production activities (Nasution & Yusleny, 2023).

Overall, these ratios play a significant role in evaluating a company's financial performance, particularly in assessing profitability. A decrease in one or more of these ratios may indicate issues in financial management, such as inefficiency in asset utilization, poor cost management, or problems in managing equity and debt (Karaca et al., 2025; Khairunisa et al., 2022; Kurniawan et al., 2022). Therefore, it is important for managers and investors to continuously monitor these ratios to ensure that the company stays on track in achieving its financial and operational goals. By understanding and analyzing financial ratios, companies can make better decisions regarding investment, cost management, and long-term financial planning (Fadhillah et al., 2024).

Cross-Country Studies

Cross-country studies on accounting systems and fiscal policies provide important insights into the role of fiscal policies in supporting long-term growth and the impact of differences in accounting structures on financial performance in various countries. Effective fiscal policies can strengthen macroeconomic stability, reduce economic uncertainty, and enhance corporate competitiveness by creating a conducive investment

climate (International Monetary Fund, 2015). In addition, a good accounting system allows for more transparent and accurate disclosures, providing a solid basis for economic decisions and fiscal policies.

Indonesia, Singapore, and Malaysia have significantly different economic dynamics between 2019 and 2023, even though all three are part of the ASEAN region. According to available data, Indonesia recorded relatively lower economic growth compared to Singapore and Malaysia. Although Indonesia has a high nominal GDP, the challenge in achieving faster growth creates pressure for the country to escape the middle-income trap. In terms of investment, Indonesia also experienced a decline in competitiveness and foreign investment flows, which shifted towards other more competitive ASEAN countries (Likuayang & Matindas, 2021).

Meanwhile, Singapore demonstrated excellent economic performance, driven by policies supporting the technology and finance sectors, as well as very high foreign investment. With a much higher GDP per capita, Singapore also has the highest Human Development Index (HDI) in ASEAN, reflecting a better quality of life. This country is not only stable in terms of economic growth but has also managed to maintain strong competitiveness (Khairunisa et al., 2022).

Malaysia, although facing similar challenges to Indonesia in terms of competitiveness, has managed to maintain stable growth. During the same period, Malaysia saw growth in the manufacturing and export sectors, although there was a slight decline due to higher inflation and domestic political uncertainties (Munzir et al., 2022). The country also leveraged foreign investment, especially in the technology and energy sectors, to drive further growth.

It is important to consider the literature being reviewed and how to manage it. Some questions that researchers must take into account when first compiling a literature review are as follows: which aspects should be included in the literature review; how is the information in the literature review synthesized; how should the literature review be organized; what style should be used in compiling the literature review; and other significant questions to be answered.

METHODS

This study uses a quantitative approach with panel data regression to analyze the impact of financial ratios on corporate performance in Southeast Asia, specifically in Indonesia, Malaysia, and Singapore. The data used in this research is secondary data obtained from the annual financial statements of companies listed on the Indonesia Stock Exchange (IDX), the Malaysia Stock Exchange (MYX), and the Singapore Exchange (SGX) during the 2019–2023 period.

The population in this study consists of all non-financial companies listed on these three stock exchanges. The sample is purposively selected with specific criteria: companies with complete financial data over six years, not from the financial or public utility sectors, and not directly impacted by COVID-19-related policies. After selection, the sample consists of 270 companies spread across the three countries.

The dependent variable used in this study is Return on Assets (ROA), which reflects the company's financial performance. The independent variables include Current Ratio (CR), Debt Ratio (DR), and Firm Size (FS), measured using the natural log of the company's total assets. Control variables include country dummies for Malaysia and Singapore to account for the economic differences between the three countries studied (Sdiq, 2022; Zabri et al., 2016).

The data analysis method in this study uses panel data regression with the selection of the best model based on the Chow, Hausman, and Lagrange Multiplier tests. Based on the test results, the Random Effect model is chosen for this research. The regression model used to analyze the data is as follows:

$$ROA_{it} = \beta 0 + \beta 1CR_{it} + \beta 2DR_{it} + \beta 3SIZE_{it} + \beta 4D\_Malaysia + \beta 5D\_Singapore + \varepsilon_{it}$$

This analytical method allows the researcher to comprehensively understand the impact of financial ratios on corporate performance, taking into account cross-sectional and time-series data.

RESULTS AND DISCUSSION

Descriptive statistics for the main variables in this study show considerable variation among companies across countries and sectors during the 2019–2023 period. The average Return on Assets (ROA) for the companies was 6.23%, with a maximum value of 84.72% and a minimum of -30.85%, indicating that some companies had exceptionally high profitability while others experienced significant losses. The high skewness value (1.83) and kurtosis (12.38) suggest that the distribution of ROA is highly non-normal, supported by the significant Jarque-Bera test results ($p < 0.05$). This phenomenon suggests the presence of entities exhibiting extremely strong financial performance alongside others experiencing very weak results, potentially reflecting fluctuations in profitability during crisis periods like the COVID-19 pandemic.

Table 1: Descriptive Statistical Analysis using EViews

	ROA__ Y_	CR__ X1_	DR__ X2_	SIZE__ X3_	D_ DURING	D_ AFTER	D_ MALAYSIA	D_ SINGAPURA
Mean	0.062322	2.009920	0.462047	30.38068	0.400000	0.400000	0.333333	0.333333
Median	0.043843	1.519475	0.455832	30.44764	0.000000	0.000000	0.000000	0.000000
Maximum	0.847244	16.15083	1.477578	34.86556	1.000000	1.000000	1.000000	1.000000
Minimum	-0.308525	0.044840	0.021702	24.05507	0.000000	0.000000	0.000000	0.000000
Std. Dev.	0.089892	1.638735	0.198578	1.662505	0.490079	0.490079	0.471579	0.471579
Skewness	1.835045	2.889478	0.261528	-0.353133	0.408248	0.408248	0.707107	0.707107
Kurtosis	12.38268	17.28090	3.131329	3.523557	1.166667	1.166667	1.500000	1.500000
Jarque-Bera	5709.618	13350.40	16.35943	43.47684	226.5625	226.5625	239.0625	239.0625
Probability	0.000000	0.000000	0.000280	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	84.13406	2713.393	623.7637	41013.92	540.0000	540.0000	450.0000	450.0000
Sum Sq. Dev.	10.90065	3622.675	53.19521	3728.530	324.0000	324.0000	300.0000	300.0000
Observations	1350	1350	1350	1350	1350	1350	1350	1350

Source: Processed Primary Data

Selection of the Best Model

Chow Test: near singular matrix

The Chow test in this study could not be completed due to the appearance of a near singular matrix warning. This indicates that parameter estimation in the Fixed Effect model becomes unstable due to high multicollinearity or an excess of dummy parameters compared to the effective number of observations. This phenomenon commonly occurs in studies with a large number of entities (cross-sections) but limited observations per entity. Therefore, model selection was not carried out using the Chow test, but through alternative tests such as the Hausman Test and Lagrange Multiplier Test, which still provided significant and valid results in determining the best approach for panel data regression.

Table 2: Hausman Test Results

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.998840	5	0.8493

Source: Processed Primary Data

The selection of the panel data regression model in this study was made by considering the results of the Hausman test, which aims to determine whether the most appropriate model to use is the Fixed Effect Model (FEM) or the Random Effect Model (REM). The Hausman test examines the null hypothesis that the difference between the REM and

FEM estimates is not significant, or in other words, that REM is an efficient and consistent model.

Based on the test results, a Chi-Square statistic value of 1.9988 was obtained with 5 degrees of freedom (df) and a probability (p-value) of 0.8493. Since the p-value is much larger than the significance level of 0.05, the null hypothesis is not rejected. Therefore, it can be concluded that the Random Effect model is more appropriate for this study than the Fixed Effect model. This decision is based on the theoretical premise that REM is used when individual effects (cross-section effects) are assumed to be random and uncorrelated with the independent variables in the model. In the context of this study, which involves many companies across sectors and countries over a five-year period, and with a balanced panel data structure, REM is considered statistically more efficient because it accounts for variation across entities without the need to estimate too many dummy parameters as in FEM.

Lagrange Multiplier Test

The Lagrange Multiplier (LM) test, or more specifically, the LM Breusch-Pagan test, is used to compare the Common Effect Model (CEM) with the Random Effect Model (REM) in panel data regression. The primary objective of this test is to identify the presence of significant individual effects (cross-section effects) in the panel data.

In this test, the null hypothesis (H_0) states that there are no individual effects, so the Common Effect Model (OLS) is considered sufficient. In contrast, the alternative hypothesis (H_1) states that significant individual effects exist, and therefore, the Random Effect Model is more appropriate.

Table 3: Lagrange Multiplier Test

Lagrange Multiplier Tests for Random Effects
Null hypotheses: No effects
Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis Cross-section	Time	Both
Breusch-Pagan	1144.760 (0.0000)	0.000273 (0.9868)	1144.761 (0.0000)
Honda	33.83431 (0.0000)	0.016530 (0.4934)	23.93616 (0.0000)
King-Wu	33.83431 (0.0000)	0.016530 (0.4934)	4.111900 (0.0000)
Standardized Honda	34.16608 (0.0000)	1.516474 (0.0647)	17.43055 (0.0000)
Standardized King-Wu	34.16608 (0.0000)	1.516474 (0.0647)	3.015917 (0.0013)
Gourieroux, et al.	--	--	1144.761 (0.0000)

Source: Processed Primary Data

The Breusch-Pagan test results show a statistic value of 1144.76 with a probability p = 0.0000. Since the p-value is less than 0.05, the null hypothesis is rejected. This indicates that there is significant variation among entities (companies) in the panel data, which cannot be explained by the Common Effect model. Therefore, the Random Effect Model is more suitable for this study.

Furthermore, additional tests such as Honda, King-Wu, and their standardized versions also show consistent results. All p-values for the cross-sectional effects tests are well below 0.05, reinforcing the evidence that individual effects between companies are significant. On the other hand, the results for the time effects tests show p-values greater than 0.49, indicating that the variation over time is not significant enough to be included in the model explicitly.

These findings align with the structure of the panel data in this study, which involves companies from different sectors and countries, where the characteristics of individual companies are diverse but stable over time. As such, the Random Effect model, assuming that individual effects are randomly distributed and uncorrelated with the independent variables, is the most appropriate approach.

Multicollinearity Test

Table 4: Results of the Multicollinearity Test

	CR__X1_	DR__X2_	SIZE__X3_	D_DURING	D_AFTER	D_MALAYSIA	D_SINGAPURA
CR__X1_	1	-0.5467458566505173	-0.2351156279667086	-0.0001299451148560336	-0.0059118021510026062	0.0659588243608476	0.009927099890273749
DR__X2_	-0.5467458566505173	1	0.1575456732471922	0.005488038275686976	0.0092092791534999978	-0.0838366456727972	-0.0876450369441500 9
SIZE__X3_	-0.2351156279667086	0.1575456732471922	1	-0.0258067707878695	0.0651744078043157776	-0.0814848018101925 6	0.1093464535703687
D_DURING	-0.0001299451148560336	0.0054880382756869 76	-0.0258067707878695	1	-0.6666666666666661	-4.0951983133594613e-18	-1.1751438639010720e-17
D_AFTER	-0.0059118021510026062	0.0092092791534999978	0.0651744078043157776	-0.6666666666666661	1	1.0683126033546428e-17	-4.2732504141857 3e-18
D_MALAYSIA	0.0659588243608476	-0.0838366456727972	-0.0814848018101925 6	-4.0951983133594613e-18	1.0683126033546428e-17	1	-0.4999999999999998
D_SINGAPURA	0.0099270998690273749	-0.0876450369441500 9	0.1093464535703687	-1.1751438639010720e-17	-4.2732504141857 3e-18	-0.4999999999999998	1

Source: Processed Primary Data

Based on the results of the correlation test between the independent variables, there is no indication of serious multicollinearity in the model. All Pearson correlation values are below the critical threshold of 0.80. The highest correlation is found between the dummy variables D_DURING and D_AFTER, which is 0.6666. This is considered acceptable because these two variables represent consecutive time stages in a longitudinal observation.

Meanwhile, the correlation between key financial variables, such as Current Ratio, Debt Ratio, and Firm Size, ranges between 0.15 and 0.54, which indicates a relatively weak to moderate relationship. Therefore, there is no indication that the regression coefficient estimates will be disrupted by multicollinearity issues, and the panel regression model can proceed under the assumption that the independence of the predictor variables is satisfied.

Heteroscedasticity Test

The heteroscedasticity test was conducted to determine whether the variance of the regression model's residuals is constant (homoscedastic) or varies (heteroscedastic). If heteroscedasticity occurs, then the Ordinary Least Squares (OLS) or even the Random Effect Model (REM) estimates may become inefficient, although they remain consistent. In this study, heteroscedasticity testing was carried out using the Panel EGLS approach with cross-section random effects, where absolute residuals (ABS_RES) were used as the dependent variable to detect any specific patterns in the residuals.

Table 5: Results of the Heteroscedasticity Test

Dependent Variable: ABS_RES
Method: Panel EGLS (Cross-section random effects)
Date: 05/25/25 Time: 16:48
Sample: 2019 2023
Periods included: 5
Cross-sections included: 270
Total panel (balanced) observations: 1350
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.412440	0.053036	7.776568	0.0000
CR__X1_	0.002396	0.001318	1.818734	0.0692
DR__X2_	0.014490	0.013574	1.067470	0.2860
SIZE__X3_	-0.012098	0.001738	-6.959892	0.0000
D_DURING	0.001099	0.003208	0.342431	0.7321

D_AFTER	0.001963	0.003242	0.605481	0.5450
D_MALAYSIA	-0.006726	0.007331	-0.917484	0.3591
D_SINGAPURA	0.001117	0.007364	0.151731	0.8794

Source: Processed Primary Data

The estimation results show that only the Firm Size variable significantly influences the residual variance (p = 0.0000), while all other variables show p-values greater than 0.05. Therefore, there is no strong evidence of systematic heteroscedasticity in the model, except for the potential partial heteroscedasticity stemming from the firm size scale. As a result, the estimation of the panel regression model can be considered valid.

The results of the regression model using the selected Random Effect Model (REM) are presented as follows:

Table 6: Results of the Selected Regression Model (REM)

Dependent Variable: ROA__Y_
Method: Panel EGLS (Cross-section random effects)
Date: 05/25/25 Time: 16:43
Sample: 2019 2023
Periods included: 5
Cross-sections included: 270
Total panel (balanced) observations: 1350
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.406729	0.076410	5.322958	0.0000
CR__X1_	0.002125	0.001625	1.307780	0.1912
DR__X2_	-0.080668	0.017824	-4.525702	0.0000
SIZE__X3_	-0.009871	0.002512	-3.929783	0.0001
D_DURING	-0.008494	0.003770	-2.253102	0.0244
D_AFTER	0.000201	0.003830	0.052554	0.9581
D_MALAYSIA	-0.015005	0.010987	-1.365778	0.1722
D_SINGAPURA	-0.009579	0.011028	-0.868620	0.3852
	Effects Specification			
			S.D.	Rho
Cross-section random			0.069724	0.6566
Idiosyncratic random			0.050426	0.3434
	Weighted Statistics			
Root MSE	0.050258	R-squared		0.045314
Mean dependent var	0.019179	Adjusted R-squared		0.040334
S.D. dependent var	0.051456	S.E. of regression		0.050407
Sum squared resid	3.409901	F-statistic		9.099667
Durbin-Watson stat	1.394979	Prob(F-statistic)		0.000000
	Unweighted Statistics			
R-squared	0.095220	Mean dependent var		0.062322
Sum squared resid	9.862689	Durbin-Watson stat		0.482296

Source: Processed Primary Data

This study examines the impact of financial ratios and the factors of time and country on corporate financial performance, measured by Return on Assets (ROA), using the Random Effect Model (REM) approach. The model was selected based on the results of the Hausman and Lagrange Multiplier tests, which support the efficiency of the REM model in the context of cross-country and cross-sector panel data.

Table 7: Interpretation of Regression Coefficients

Variable	Coefficient	Probability	Interpretation
C	0.04607	0.0000	When all independent variables are zero, the average ROA is 40.67% (baseline model).
CR (X1)	0.0021	0.1912	Not significant. A rise in the liquidity ratio (CR) does not statistically impact ROA.
DR (X2)	-0.0807	0.0000	Significant negative. The higher the debt ratio, the lower the ROA. Consistent with capital structure theory (Rajan & Zingales, 1995).
SIZE (X3)	-0.0099	0.0001	Significant negative. Larger firm size tends to lower ROA, possibly due to inefficiencies or unproductive asset burdens.
D_DURING	-0.0085	0.0244	Significant negative. Corporate financial performance decreased during the COVID-19 pandemic compared to before the pandemic.
D_AFTER	0.0002	0.9581	Not significant. No significant difference in performance post-pandemic compared to pre-pandemic.
D_MALAYSIA	-0.0150	0.1722	Not significant. Malaysian companies have lower ROA than Indonesia, but the difference is not statistically significant.
D_SINGAPURA	-0.0096	0.3852	Not significant. Singaporean companies are not significantly different from the baseline (Indonesia).

Source: Processed Primary Data

Table 8: Goodness of Fit & Statistical Model

Statistic	Value	Interpretation
R-squared (Weighted)	0.0453	Only 4.53% of ROA variation is explained by the model → quite low.
Adj. R-squared	0.0403	Adjusted R^2 is also low.
F-statistic	9.10 (p = 0.0000)	Model is significant simultaneously → at least one variable is significant.
Durbin-Watson stat	1.39	Positive autocorrelation indicated → could be considered for correction.

Source: Processed Primary Data

Based on the estimates using the Random Effect Model (EGLS), it was found that the Debt Ratio (DR) and Firm Size variables have a significant negative impact on Return on Assets (ROA), with coefficients of -0.0807 ($p = 0.0000$) and -0.0099 ($p = 0.0001$), respectively. This indicates that the higher the level of debt and the larger the size of the company, the more likely it is to reduce profitability performance. Additionally, the dummy variable D_DURING (during the pandemic period) also has a significant negative impact ($p = 0.0244$), suggesting that the ROA of companies generally decreased during the COVID-19 pandemic. Meanwhile, the Current Ratio (CR), D_AFTER (post-pandemic period), and the country dummy variables do not show significant effects. Although the model is statistically significant (F-statistic = 9.10; $p < 0.01$), the relatively low R-squared value (0.045) indicates that most of the variation in ROA is influenced by factors outside the model. The Durbin-Watson statistic of 1.39 suggests the possibility of positive autocorrelation in the data, which can be minimized through the use of robust standard errors in further estimation.

This study aims to explore the impact of financial ratios on corporate performance in Southeast Asia, with a focus on comparing the pre- and post-COVID-19 pandemic periods. Specifically, this study looks at the influence of the Current Ratio (CR), Debt Ratio (DR), and Firm Size on Return on Assets (ROA) as a measure of corporate financial performance. Based on the findings, the Debt Ratio and Firm Size were found to have a significant negative impact on ROA, while the Current Ratio did not show a significant relationship. Additionally, the impact of the COVID-19 pandemic on corporate performance was also a major focus of this study, with the findings indicating a greater decline in corporate performance during the pandemic compared to the post-pandemic period (Bratton & Wójcik, 2022; Caselli, 2016).

The high variation and non-normal distribution of ROA, as reflected by the skewness value of 1.83 and kurtosis value of 12.38, reflect the disparity in profitability across companies from different countries and sectors. Companies that are market leaders or belong to rapidly growing sectors such as technology tend to show high asset returns, while companies that were directly affected by the COVID-19 pandemic or experienced

structural losses tend to show negative ROA. This finding aligns with the study by Baker et al. (2020), which states that the pandemic increased the financial performance volatility among companies. This imbalance causes the distribution of ROA to become asymmetric with a sharp peak in the distribution, as indicated by the significant Jarque-Bera test results.

The Current Ratio (CR) has an average value of 2.01, which generally indicates that companies in the sample are well able to meet their short-term obligations. This ratio is within a theoretically healthy range, where ratios greater than 1 are considered to indicate adequate liquidity (Brigham & Daves, 2013). However, the extremely high maximum CR value of 16.15 and the skewness value of 2.88 indicate a highly non-normal distribution, with a long right tail. This condition reflects the presence of outlier companies that have significantly higher current assets than their current liabilities. This phenomenon is often observed in companies that:

- Are hoarding cash,
- Have obtained a large amount of working capital financing but have not yet used it, or
- Operate in financial digital and online retail models, which tend to maintain high liquid assets for strategic flexibility (Chen et al., 2019).

This notable rightward skewness in the distribution of CR may also be influenced by the conservative liquidity management strategies adopted by companies amidst global economic uncertainty during and after the COVID-19 pandemic. During a crisis, companies tend to increase their liquidity ratio as a risk mitigation measure, which, in turn, creates distribution discrepancies among companies (Zimon & Tarighi, 2021).

Meanwhile, the Debt Ratio (DR) has an average value of 46.20% and a skewness value of 0.26, reflecting a relatively symmetric and stable distribution. This condition indicates that most companies in the sample use debt in moderate proportions relative to their total assets. The absence of a dominant number of companies with extremely high or low leverage suggests a conservative approach to managing capital structure, which is commonly found in companies from developing countries. This finding aligns with the study by Booth et al. (2001), which found that companies in developing countries such as Indonesia, Malaysia, and Thailand tend to combine internal and external financing in a balanced manner, with a high sensitivity to macroeconomic risks and interest rate volatility.

Furthermore, the stability of the DR distribution can also be explained by the influence of prudential regulations implemented by financial authorities and capital markets in the ASEAN region. The presence of regulations such as debt-to-equity ratio limits, capital adequacy requirements, and corporate credit ratings encourages companies to maintain their debt ratios at healthy and non-excessive levels. According to Rajan and Zingales (1995), regulatory conditions and access to capital markets play a significant role in shaping corporate capital structures, particularly in markets transitioning toward more open financial systems. Additionally, companies listed on stock exchanges have better access to equity-based financing sources, such as rights issues and private placements, reducing their dependence on long-term bank debt. As such, this balanced financing structure results in a relatively normal and stable distribution of leverage across companies, as reflected by the DR skewness value close to zero.

The firm size (FS), which in this study is measured using the natural logarithm of total assets, has an average value of 30.38 with a standard deviation of 1.66. This reflects considerable variation in the scale of companies across the three countries and various industry sectors. The firm size distribution shows a kurtosis value of 3.52 and negative skewness, indicating a distribution that is close to normal but with some outliers. This is typical as the sample includes both very large multinational companies and medium-sized companies listed on the stock exchanges.

The presence of outliers in firm size is often unavoidable, especially in cross-country and cross-sector studies, where conglomerates in sectors like basic industries and

technology can have much higher total assets than companies in retail or pharmaceuticals. However, the use of the natural logarithm has helped stabilize the variance and reduce the impact of extreme values, as recommended in financial statistics literature (Gujarati & Porter, 2021).

Theoretically, firm size has a significant impact on financial performance, both directly and indirectly. Larger companies generally have broader access to resources, economies of scale, operational efficiency, and stronger bargaining power in the market. This aligns with the resource-based view (RBV) theory, which emphasizes the importance of possessing strategic resources to create competitive advantages (Barney, 1991).

However, in the context of developing countries and the ASEAN region, firm size does not always correlate positively with profitability. Empirical research has found that large companies also face challenges in asset allocation efficiency, complex organizational structures, and internal bureaucracy, which may reduce agility and innovation (Ayadi & Boujelbene, 2020). This explains why, in some cases, firm size is negatively related to Return on Assets (ROA), as found in the panel regression results of this study.

Agency Theory can help explain some of the findings, particularly concerning the impact of the Debt Ratio on corporate performance. In the context of agency theory, a higher level of debt within a company can affect managerial decisions regarding financial management. This aligns with previous research that shows that companies with higher levels of debt tend to perform worse due to potential conflicts of interest between managers and shareholders (Jensen & Meckling, 1976). These conflicts arise because managers, who run the company, may prioritize their personal interests, such as increasing their salary or maintaining their power, over focusing on achieving optimal company performance.

Additionally, the size of the company also has a negative effect on performance. This can be explained by the theory that larger companies tend to face more complex challenges in managing resources and decision-making. Large companies may find it harder to adapt to rapid market changes or economic crises such as the one caused by the COVID-19 pandemic (Purnama & Nurdiniah, 2019). In this case, larger companies may have more rigid organizational structures and less flexibility in managing their financial and operational resources, which ultimately impacts their performance (Damas & Wicaksono, 2025; Dewi et al., 2023; Enomoto et al., 2018).

However, these findings align with other studies that show that financial ratios such as Debt Ratio and Firm Size can significantly influence corporate financial performance, especially in times of crisis (Safarida, Irawati & Kamal, 2023). The COVID-19 pandemic, with its widespread impact on the global economy, seems to have exacerbated the negative effects of financial ratios on corporate performance, as evidenced by the sharper decline in performance during the pandemic. This highlights the importance of effective financial management and prudent debt management in maintaining corporate performance during times of economic uncertainty (Espenlaub et al., 2025).

On the other hand, the insignificant result for the Current Ratio's impact on ROA may reflect the unique characteristics of companies in Southeast Asia, which differ from companies in developed countries. Most companies in this region may rely more on external factors such as government policies or market changes to survive in difficult situations. Therefore, while liquidity ratios like the Current Ratio are often considered as primary indicators of a company's financial health, this study suggests that external factors and more complex managerial strategies may play a more significant role in determining a company's financial performance (Huang et al., 2023; Ivania Larasati & Purwanto, 2022).

Overall, this study provides important contributions to the understanding of the dynamics between financial ratios and corporate performance in Southeast Asia, especially in the context of the COVID-19 pandemic. The findings also offer insights for policymakers and corporate managers in formulating policies that are more responsive to economic crises and in planning more adaptive financial strategies in the future. Ultimately, this study emphasizes the importance of a deeper understanding of the impact

of both internal and external factors on corporate performance and how companies can respond to rapid changes in a challenging economic environment.

CONCLUSION

This study finds that the Debt Ratio (DR) and Firm Size (Firm Size) have a significant negative impact on Return on Assets (ROA), while the Current Ratio (CR) does not show a significant effect on ROA. The impact of the COVID-19 pandemic was found to be negative on corporate performance, particularly during the pandemic period. However, corporate financial conditions post-pandemic have not fully recovered. Additionally, differences between countries in Southeast Asia (Indonesia, Malaysia, and Singapore) did not show a significant impact on ROA, which challenges the assumption that country factors always affect cross-country financial performance. The main contribution of this research is to provide a deeper understanding of the relationship between capital structure, firm size, liquidity, and corporate performance, particularly in the context of global crises such as the pandemic. This study also offers insights into the impact of the COVID-19 pandemic on corporate performance in Southeast Asia and how factors like Debt Ratio and Firm Size play an important role in determining corporate profitability. These findings are highly relevant for financial managers in formulating more adaptive financial policies in the face of economic uncertainty.

As a suggestion for future research, it is important to investigate the impact of other macroeconomic variables, such as monetary and fiscal policies, on corporate financial performance, especially during global crises. Further studies can also develop more comprehensive models by considering factors such as risk management and corporate adaptation strategies to economic disruptions. Additionally, more varied research that involves data from different industrial sectors will provide a broader perspective on the differing impacts experienced by specific sectors. Further analysis on the post-pandemic impact would also enrich our understanding of the resilience of business sectors to global crises.

This article presents several aspects of novelty. Firstly, it offers a unique geographical context by employing a cross-country analysis within Southeast Asia using a unified empirical model. Secondly, it provides a clear temporal comparison by explicitly examining the pre-, during-, and post-COVID-19 pandemic periods. Thirdly, it delivers empirical findings that contrast with previous literature, particularly regarding the insignificance of the Current Ratio and the lack of significant differences among countries. Lastly, the study adopts a combined theoretical approach, integrating Agency Theory and the Resource-Based View to explain its empirical results, which adds depth and originality to the analysis.

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