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FINANCE

Exploring the Determinants of Financial Distress in ASEAN-5 Firms During the COVID-19 Pandemic

Dwi Alfiyanah[1,*], Ika Atma Kurniawanti[2]
Fakultas Ekonomi dan Bisnis, Universitas Airlangga, Surabaya, Indonesia[1,2]
Corresponding e-mail: dwi.alfiyanah-2024@feb.unair.ac.id[*]

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ABSTRACT

Purpose: This study examines the relationship between profits, cash flows, leverage, and their effects on financial distress in publicly traded companies across the ASEAN-5 countries during the COVID-19 pandemic, spanning from 2020 to 2023.

Method: Financial distress was measured using the Altman Z-score, and the analysis utilized panel data regression. To enhance the reliability of the results, the Fixed Effect Model (FEM) with robust standard errors was applied. The sample consisted of 3,065 firms and 10,750 firm-year observations, selected through purposive sampling from the Osiris database.

Result: The findings show that long-term leverage significantly increases the likelihood of financial distress. In contrast, profit, operating cash flow, and the current ratio had no significant effect. These results emphasize the critical role that long-term debt structure plays in shaping financial vulnerability during systemic crises, such as pandemics.

Practical Implications for Economic Growth and Development: This study offers valuable insights for corporate managers, investors, and policymakers in developing strategies to strengthen capital structure management. Reducing reliance on long-term debt can enhance corporate financial resilience, which, in turn, supports macroeconomic stability and promotes sustainable development.

Originality/Value: This study contributes to the literature by focusing on the pandemic period in the ASEAN-5 region, utilizing a comprehensive cross-country and multi-year sample, and highlighting the significance of long-term leverage as a key factor in financial distress.

Keywords: *Financial Distress, Altman Z-Score, ASEAN-5, Profit, Cash Flow, Leverage*

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INTRODUCTION

The 1997-1998 Asian financial crisis, the 2008 global financial crisis, and the COVID-19 pandemic have all highlighted the vulnerability of companies to economic uncertainty (Chopra & Mehta, 2022; Hasan et al., 2022; Rosenkranz & Melchor, 2022). Companies in Asian countries, in particular, have experienced declining market performance and abnormally negative returns compared to other regions (Liu et al., 2020). In times of economic turbulence, companies face a variety of pressures, including declining demand, exchange rate volatility, higher capital costs, and supply chain disruptions, all of which have the potential to trigger financial distress (Ağca et al., 2023; Albuquerque et al., 2020; Balleer et al., 2024; Ke, 2022; Lal et al., 2023). If not properly managed, financial distress can escalate into bankruptcy (Bikmetova et al., 2024; Zhou et al., 2022). In the ASEAN region, this vulnerability is further compounded by weak financial infrastructure, reliance on export-import activities, and limited social and fiscal protection systems (Abbas & Nainggolan, 2023; Aharon & Siev, 2021). As a result, many companies are forced to undertake financial restructuring, implement cost-efficiency measures, and resort to layoffs to survive under pressure. This underscores the importance of examining internal corporate factors that influence financial distress, particularly in the ASEAN-5 countries, which are highly susceptible to global shocks.

From a theoretical perspective, financial distress is often analyzed through predictive models like the Altman Z-score (Altman, 1968), which highlights the role of financial ratios as leading indicators, as well as through Trade-Off Theory (Kraus & Litzenberger, 1973) and Pecking Order Theory (Myers & Majluf, 1984), which explain the dynamics of capital structure and bankruptcy risk. However, recent empirical studies suggest a shift in the relevance of financial indicators. Abbas & Nainggolan (2023) found that investors in the ASEAN region are increasingly skeptical about the relevance of historical profits as a key indicator of financial resilience, given the high levels of operational uncertainty and external volatility. In times of crisis, profit data is often seen as insufficient to capture risks comprehensively, prompting investors to consider other financial variables more equally when assessing potential distress. Additionally, Abou-El-Sood (2025) highlighted that, during the COVID-19 pandemic, operating cash flow became significantly more important for investors in emerging markets (such as the GCC), as cash flow is seen as a more reliable indicator than accounting earnings and book equity. Furthermore, Tarighi et al. (2024) demonstrated that companies tended to adopt more conservative policies regarding working capital during the COVID-19 crisis, leading to an increase in the current ratio and other liquidity ratios.

Empirical studies on the relationship between financial variables and distress have yielded mixed results. While some studies confirm that profitability and liquidity are strong predictors of financial distress, others emphasize the dominance of leverage as a key factor. The COVID-19 pandemic revealed inconsistencies, as traditional indicators like profit and cash flow occasionally failed to capture the true vulnerabilities of companies. This highlights an empirical gap that requires further investigation, particularly in the ASEAN context. This study focuses on the COVID-19 pandemic as a unique context for analyzing public companies in the ASEAN-5 region. Unlike most prior studies conducted under normal economic conditions, this research re-examines the relevance of classical financial indicators—profitability, operating cash flow, and leverage—in predicting financial distress during systemic crises. By using cross-country and multi-year datasets, this study seeks to offer a more comprehensive understanding of the determinants of financial distress in emerging markets, with a particular focus on the management of capital structures in the face of global uncertainty.

In response to research gaps and practical needs, this study aims to analyze the effects of profitability, operating cash flow, and leverage on financial distress in public companies across ASEAN-5 (Indonesia, Thailand, Singapore, Malaysia, and the Philippines) during the COVID-19 pandemic (2020-2023), using the Altman Z-score and panel data regression. The study employs a quantitative approach, with a sample of 3,065 companies selected through purposive sampling from the Osiris database. Theoretically, this study revisits the validity of Trade-Off Theory and Pecking Order Theory in the context of economic turbulence. Furthermore, it offers recommendations for managers, investors, and regulators to minimize

the risk of financial distress by managing long-term debt structures and considering factors such as company size, age, and asset efficiency in strategic decision-making.

Hypotheses Development

Profit and Financial Distress

Profit reflects a company's ability to generate earnings from its core operations and acts as a financial cushion, particularly during times of crisis, such as the COVID-19 pandemic. According to the Pecking Order Theory (Myers & Majluf, 1984), firms prioritize internal financing over external debt. As such, higher profits lead to greater availability of internal funds for operational financing, which reduces reliance on debt, minimizes the risk of financial distress, and enhances the company's resilience to external shocks.

H1: Profit has a negative effect on financial distress.

Cash Flow and Financial Distress

Operating cash flow (OCF) reflects a firm's ability to generate cash from its core business operations, independent of financing activities. According to the Pecking Order Theory (Myers & Majluf, 1984), robust cash flow provides an internal source of funding, reducing the need for external debt. Companies with strong cash flows are better equipped to handle liquidity challenges and reduce the likelihood of financial distress.

H2: Cash flow has a negative effect on financial distress.

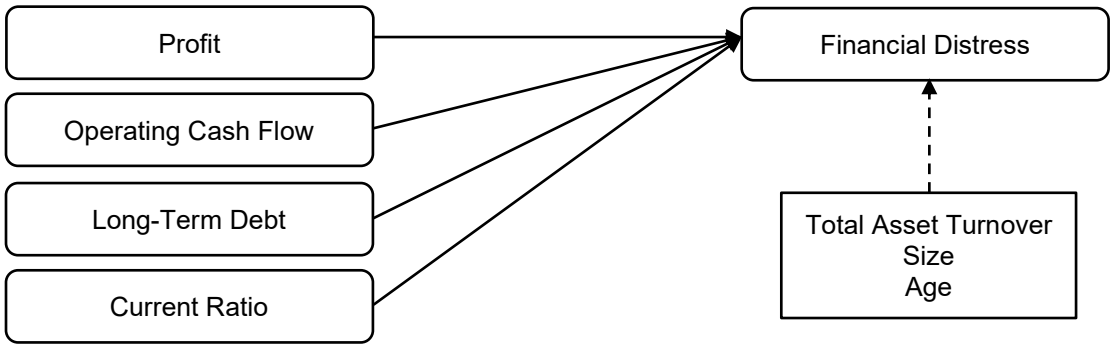
Leverage and Financial Distress

Leverage reflects the extent to which a company relies on debt financing, particularly long-term borrowing. According to the Trade-Off Theory (Kraus & Litzenberger, 1973), an optimal capital structure strikes a balance between the tax benefits of debt and the associated risk of insolvency. Excessive leverage increases fixed financial obligations, raising the likelihood of economic distress. During crises like the pandemic, highly leveraged firms faced severe challenges as declining revenues could not be offset by flexible spending, exacerbating their vulnerability to financial difficulties. On the other hand, short-term liquidity (current ratio) is expected to help companies manage immediate financial obligations.

H3a: Leverage (Long-Term Debt) has a positive effect on financial distress.

H3b: Leverage (Current Ratio) has a negative effect on financial distress.

Figure 1. Research Model



Source: Developed by the authors (2025)

Based on the theoretical framework and findings from prior studies, a quantitative research model can be developed to examine the relationship between profit, cash flow, and leverage with respect to financial distress. In this model, financial distress is the dependent variable, influenced by three key indicators of economic performance: profit, operating cash flow, and leverage (represented by long-term debt and the current ratio). To ensure robustness and minimize bias in the results, control variables such as company size, age, and asset efficiency are also included. The research model is illustrated in Figure 1 above.

METHOD

This study examines 3,065 publicly listed firms across five ASEAN member countries—Indonesia, Thailand, Singapore, Malaysia, and the Philippines—from 2020 to 2023, resulting in 10,750 firm-year observations. The research focuses on financial indicators, including firms' profit performance, operating cash flow, and leverage (measured by long-term debt and current ratio) as independent variables. Financial distress, assessed using the Altman Z-Score, serves as the dependent variable. To strengthen the model, control variables such as total asset turnover, firm size, and age are incorporated. Each variable is measured using specific indicators and formulas aligned with prior literature, as summarized in Table 1.

Table 1. Operational Variables

Variable	Measurement	Data Source
Dependent Variable		
Financial Distress	Altman Z-Score $FcD = 1.2X1 + 1.4X2 + 3.3X3 + 0.6X4 + 1X5$	Osiris
Independent Variables		
Profit	Earnings After Tax / Total Assets	Osiris
Operating Cash Flow	Operating Cash Flow / Total Assets	Osiris
Long-term Debt	Long-term Debt / Total Assets	Osiris
Current Ratio	Current Assets / Current Liabilities	Osiris
Control Variables		
Total Asset Turnover	Total Asset Turnover	Osiris
Size	The logarithm of the total assets	Osiris
Age	Years since IPO	Osiris

Source: Compiled by the authors (2025)

The study's population consists of all firms listed on the stock exchanges of five ASEAN member nations: Indonesia (IDX), Thailand (SET), Singapore (SGX), Malaysia (Bursa Malaysia), and the Philippines (PSE) from 2020 to 2023. The sample selection was carried out using a purposive sampling approach, based on specific criteria aligned with the study's objectives. The inclusion criteria are as follows: (1) the company must have produced a comprehensive annual financial report for all four years of the study (2020-2023), and (2) there must be complete data available for all variables examined in this research. Secondary data was gathered from the Osiris database, ensuring the availability of pertinent financial variables for every company within the targeted region and timeframe. Based on data availability and the satisfaction of the inclusion criteria, several companies from each country were chosen proportionally. The sampling criteria are presented in Table 2, along with the number of relevant companies.

Table 2. Sampling Criteria

No	Criteria	Number
1	The company has published complete annual financial reports for the period 2020-2023. Indonesia (n=950), Thailand (n=875), Singapore (n=558), Malaysia (n=1,070) and Philippines (n=284)	3,737
2	Companies with incomplete data for all required variables were excluded from the sample.	(672)
3	Final number of companies that satisfied all inclusion criteria. Indonesia (n =731), Thailand (n=740), Singapore (n=491), Malaysia (n=914) and Philippines (n=189)	3,065
4	Total observational data	10,750

Source: Processed data (2025)

This research employs panel data regression analysis to investigate the relationship between financial metrics and the degree of economic distress in publicly traded companies across five ASEAN nations from 2020 to 2023. The panel data regression approach was chosen for its ability to handle variations in data across different companies (cross-section) and over different time periods (time-series), leading to more effective and insightful parameter estimation. The analysis begins with descriptive statistics that illustrate the characteristics of the data distribution, including mean values, standard deviations, and both minimum and maximum values. The optimal panel regression model is determined based on the results of the Chow, Hausman, and Breusch-Pagan Lagrange Multiplier tests, which indicate whether the Common Effects Model (CEM), Fixed Effects Model (FEM), or Random Effects Model (REM) is most appropriate. Following this, classical assumption diagnostics are conducted, including a multicollinearity assessment (via VIF) and a heteroscedasticity evaluation (using the Breusch-Pagan test), to verify the reliability and validity of the chosen regression model. Once the most suitable panel regression model is identified, the analysis tests the hypotheses both simultaneously and partially using Stata 14. By describing the dependent, independent, and control variables, the model equations are as follows:

$$FcD_{i,t} = \beta_0 + \beta_1 Profit_{i,t} + \beta_2 OCF_{i,t} + \beta_3 LTD_{i,t} + \beta_4 CR_{i,t} + \beta_5 TAT_{i,t} + \beta_6 SIZE_{i,t} + \beta_7 AGE_{i,t} + \varepsilon$$

In the estimation model, the dependent variable is the company's financial distress, which is proxied by the Altman Z-Score value. Independent variables include profit, operating cash flow, and leverage (long-term debt and current ratio). The value of the constant is represented by β_0. At the same time, β_1 to β4 is the regression coefficient for each independent variable, and β5 to β7 is the regression coefficient for the variable control, and ε is the error term. Subscript *i* refers to cross-sectional units, i.e., public companies in ASEAN-5 (Indonesia, Malaysia, Singapore, Thailand, and the Philippines), while *t* indicates the annual observation period from 2020 to 2023.

RESULT AND DISCUSSION

Descriptive Statistics

Descriptive statistical analysis summarizes the data by presenting the maximum, minimum, average values, and data dispersion, which are reflected in measures such as standard deviation, skewness, and kurtosis.

Table 3. Descriptive Statistics

Variables	Mean	Std. Dev.	Min	Max	p1	p99	Skew.	Kurt.
FcD	-0.3154	82.3621	-8,353.51	52.2143	-8.744	4.5527	-97.5571	9,851.11
Profit	-0.0032	0.6443	-37.1875	15.0095	-0.5803	0.2896	-31.971	1,821.27
OCF	0.0718	0.3158	-13.9583	16.5587	-0.2945	0.4075	7.1359	1,518.65
LTD	0.4909	30.9116	0	3,192.05	0.	0.6055	102.4494	10,573.3
CR	3.2039	11.9268	0.0024	492.4076	0.1244	21.3812	28.5897	987.3471
TAT	493,432.5	2,632,164	-1,925.38	9,79e+07	477.9424	7,663,531	19.5577	539.5062
SIZE	11.8987	1.7971	3.5445	18.4317	8.2363	16.6773	0.432	3.3012
AGE	6,937.973	6,437.178	1	45,291	67	43,299	2.8075	15.793

Source: Processed data (2025)

Table 3 shows the results of a descriptive analysis of the eight main variables used in this study, based on a total of 10,750 observations. The dependent variable, financial distress (FcD), measured using the Altman Z-Score, has an average value of -0.3154 with a very high standard deviation of 82.36. The minimum value was recorded at -8,353.51, and the maximum at 52.21, indicating an extreme data spread. A very negative skewness of -97.56 and a high kurtosis of 9,851.11 suggest a highly asymmetrical distribution. The Profit variable has an average of -0.0032, indicating that, in aggregate, many companies suffered losses during the observation period. The skewness value of -31.97 and the kurtosis of 1,821.27 again point to a highly skewed and abnormal distribution.

At the same time, the average for the operating cash flow variable (OCF) stands at 0.0718, with a standard deviation of 0.3158. Despite the lowest recorded value being negative, a positive skewness of 7.13 suggests a right-skewed distribution, indicating that most companies report low cash flows, with only a small proportion experiencing very high cash flows.

The leverage variables, represented by the long-term debt ratio (LTD) and the current ratio (CR), show extreme distribution characteristics. LTD has a very high maximum value of 3,192.05, a skewness of 102.45, and a kurtosis of 10,573.3, indicating a significant outlier of companies with very large long-term debt relative to their assets. Similarly, CR displays a distribution with a skewness of 28.59 and a kurtosis near 1,000, indicating a massive liquidity imbalance between companies.

The control variable of total asset turnover (TAT) shows an average of 493,432.5, with a significant standard deviation of 2,632,164, as well as an extreme maximum value of 9.79e+07, indicating the presence of companies with very high asset efficiency in specific contexts (likely sectors with high sales but low assets). High skewness and kurtosis reinforce the presence of outliers. In contrast, the company size (SIZE), measured by the log of total assets, has a relatively more normal distribution, with an average value of 11.89, a near-symmetrical skewness of 0.43, and a kurtosis of 3.30. This indicates a more stable and balanced distribution of data among companies.

The company age variable (AGE) shows an average value of 6.938, with a standard deviation of 6.437, a maximum value of 45.291, and a distribution characterized by a skewness of 2.81 and a kurtosis of 15.79. This suggests that most companies are relatively new, but there are some with very long operational lives.

Almost all variables exhibit abnormal distributions, indicated by extreme skewness and kurtosis values. This reflects the significant imbalance in financial performance between companies during the COVID-19 pandemic, where some companies faced extreme pressure, while others remained stable or even grew. This inequality highlights the uneven impact of the pandemic, where some companies experienced severe crises, while others were relatively unaffected. Therefore, in the subsequent analysis stage, special attention must be given to potential outliers, and consideration should be made for a more suitable estimation model to ensure that the regression results remain valid and are not distorted by extreme values in the data.

Panel Data Model Selection

In panel data regression, three statistical tests are commonly applied to determine the most appropriate model specification. The Chow Test is first used to distinguish between the Common Effect Model (CEM) and the Fixed Effect Model (FEM). If the probability value (prob-F) exceeds 0.05, the CEM is preferred, whereas a value below 0.05 indicates the FEM. The Hausman Test is then performed to decide between the FEM and the Random Effect Model (REM). A probability value greater than 0.05 supports the REM, while a value less than 0.05 favors the FEM. Finally, the Breusch-Pagan Lagrange Multiplier Test is applied when inconsistencies arise between the Chow and Hausman results, serving to determine whether the CEM (if prob-F > 0.05) or the REM (if prob-F < 0.05) is more suitable (Hapsari et al., 2025).

The panel regression model analysis findings revealed that both the Chow test and the Hausman test yielded a probability value of 0.0000. This result signifies a high level of statistical significance, leading to the rejection of the null hypothesis for both tests. The rejection of the null hypothesis in both the Chow and Hausman tests indicates that the Fixed Effect Model (FEM) provides a better fit compared to the Common Effect Model (CEM) and Random Effect Model (REM). The preference for the FEM arises because it accounts for correlations between unobserved individual effects and explanatory variables. Consequently, using the FEM allows this study to better capture unobservable, time-invariant heterogeneity, thereby strengthening the validity and robustness of the estimation outcomes.

Classical Assumption Test

Two classical assumption tests were performed to validate the panel data regression model: multicollinearity and heteroscedasticity. Multicollinearity was examined using the Variance Inflation Factor (VIF), with values above 10 indicating potential issues. Heteroscedasticity was tested by assessing the chi-square probability, where values exceeding 0.05 suggest its absence. The results of these tests for the Fixed Effect Model (FEM) are presented in Table 4.

Table 4. Classical Assumption Tests Result

No.	Test Type	Criteria	Result	Conclusion
1	Multicollinearity	VIF less than 10	Range: 1.4 to 2.2	No multicollinearity detected
2	Heteroscedasticity	Probability > 0.050	Chi-square: 151,164.47, p-value = 0.0000	Heteroscedasticity detected (H_0 rejected)

Source: Processed data (2025)

Based on these results, the regression model did not experience multicollinearity but did exhibit heteroscedasticity issues. If ignored, heteroscedasticity can lead to inefficient variance estimation. Therefore, at the advanced stage, a robust standard errors test or regression estimation resistant to heteroscedasticity will be conducted to ensure that the analysis results remain valid and can be interpreted appropriately, especially in the context of complex financial data during the COVID-19 pandemic.

Hypotheses Testing

Hypothesis testing was conducted to evaluate whether the independent variables significantly affect the dependent variable—financial distress—both jointly and individually. Joint significance was assessed using the F-test, whereas individual significance was evaluated with t-tests on the regression coefficients.

Table 5. F-Test and Coefficient of Determination for Fixed Effects Model

Description	FE Model (Robust)
N	10,750
Adjusted R-squared	0.9695
Prob (F-statistic)	0.0000

Source: Processed data (2025)

Table 5 shows that the probability (p-value) of 0.0000—below 0.05—indicates that, jointly, profit, cash flow, leverage, total asset turnover, firm size, and firm age significantly affect financial distress. In addition, the adjusted R-squared of 0.9695 suggests that the set of independent variables explains approximately 96.95% of the variation in financial distress, indicating strong explanatory power and relevance of the model during the study period.

Table 6. Hypotheses Testing Result

No.	Variable	Coefficient	t-Statistic	p-value	Conclusion
1	Profit	21.082	1.78	0.0750	Not significant
2	OCF	72.913	1.83	0.0680	Not significant
3	LTD	-23.903	-221.68	0.0000	Significant
4	CR	0.0082	1.77	0.0770	Not significant
5	TAT	-3.36E-07	-1.27	0.2040	Not significant
6	SIZE	63.522	2.67	0.0080	Significant
7	AGE	-0.0003	-2.56	0.0110	Significant

Source: Processed data (2025)

Table 6 presents the Fixed Effects Model (FEM) with robust standard errors and shows that not all independent variables have a statistically significant effect on financial distress (Altman Z-score). Profitability has a coefficient of 2.1082 ($p = 0.075$), operating cash flow (OCF) 7.2913 ($p = 0.068$), and the current ratio 0.0082 ($p = 0.077$); none is significant at the 5% level. Although their coefficients are positive, these indicators did not provide strong predictive power during the observation window, likely reflecting pandemic-related disruptions to firms' financial health. In contrast, long-term debt exhibits a significant negative effect on the Z-score (coefficient = −2.3903, $p = 0.000$), implying that higher long-term leverage elevates the likelihood of financial distress. These results are consistent with trade-off and pecking order theories, which posit that heavy debt reliance—especially under volatile revenues—increases vulnerability during external shocks such as COVID-19. Accordingly, hypotheses H1, H2, and H3b are not supported, whereas H3a is accepted, albeit with a coefficient sign opposite to the original expectation.

Discussion

Profit and Financial Distress

The findings indicate that profitability does not significantly affect financial distress, contradicting the initial hypothesis that higher profitability reduces a firm's likelihood of distress. Under Pecking Order Theory, internally generated funds from strong profits should reduce reliance on external financing and, by extension, lower distress risk. However, amid the COVID-19–related uncertainty, profitability was not the primary driver of financial resilience. Even profitable firms remained exposed to vulnerabilities arising from operational disruptions, restrictions on economic activity, and volatile markets. This result is consistent with prior evidence showing no significant effect of profitability on financial distress (see Sudaryo et al., 2021; Yosandra & Sembiring, 2022). Collectively, these outcomes suggest that profitability alone is not a sufficient safeguard for financial stability during systemic shocks.

Within the ASEAN-5 context, this pattern is plausible given that many firms reported accounting profits while facing acute liquidity constraints, delayed receivables, and high fixed costs that limited their capacity to adjust to shocks. Moreover, policy interventions—such as fiscal stimulus and temporary debt-relief programs—may have attenuated the link between profitability and distress, diminishing profitability's value as a predictor. Consequently, profitability lost much of its predictive power during the pandemic, highlighting how external shocks and structural vulnerabilities can overwhelm traditional performance metrics in explaining corporate resilience (Duricova et al., 2025).

Cash Flow and Financial Distress

The results show that operating cash flow (OCF) does not significantly predict financial distress, contrary to the initial hypothesis that stronger cash generation alleviates financial difficulties. Conceptually, OCF reflects a firm's internal capacity to meet short-term obligations and sustain operations, consistent with the Pecking Order Theory, which posits a preference for internal over external financing. Nevertheless, during periods of heightened uncertainty such as the COVID-19 pandemic, positive operating cash flow alone may not ensure overall financial stability. Revenue contractions, demand volatility, and unexpected cost escalations can quickly erode liquidity buffers. This finding aligns with prior studies reporting no significant effect of cash flow on financial distress (Putra et al., 2022; Christy & Natalylova, 2023). Accordingly, the evidence refines the literature by indicating that operational liquidity is not invariably decisive in predicting corporate vulnerability, particularly in volatile macroeconomic environments.

In the ASEAN-5 context, firms generating positive OCF still faced supply-chain disruptions, delayed customer payments, and rising input costs that compressed liquidity. In addition, government relief measures and loan-restructuring programs temporarily eased short-term pressures, attenuating the observed relationship between OCF and distress. These circumstances help explain why OCF lost predictive power during the pandemic, underscoring that external shocks and structural vulnerabilities can outweigh internal cash-generation capacity in shaping corporate resilience (He et al., 2022; Tarighi et al., 2024).

Leverage and Financial Distress

The results demonstrate that long-term debt (LTD) has a significant negative relationship with financial distress, supporting the Trade-Off Theory. According to this theory, higher debt levels increase default risk due to the substantial fixed-interest obligations, which reduce liquidity. The COVID-19 pandemic intensified this effect, as firms with high levels of debt became more vulnerable to cash flow shortages and adverse market shocks, thereby increasing the likelihood of financial collapse. In the ASEAN-5 context, many firms relied on long-term borrowing to mitigate operational disruptions and declining revenues. However, this strategy heightened financial fragility, as repayment schedules remained fixed while cash inflows became highly uncertain. These findings are consistent with research highlighting the role of debt exposure in increasing firms' vulnerability during the pandemic, with leverage significantly amplifying financial risk when external shocks depleted liquidity buffers (Huang et al., 2023).

In contrast, the current ratio does not show a significant relationship with financial distress. This suggests that high levels of short-term liquidity do not necessarily translate into improved financial resilience, especially when current assets are primarily tied up in receivables or inventories that are difficult to convert into cash. Firms with both very high and very low current ratios face comparable risks of financial distress. These findings align with previous studies (Kismanah, 2021; Dirman, 2020; Kadarningsih et al., 2021; Silvia, 2022), which also found that the current ratio is not a reliable predictor of financial distress. The results imply that long-term capital structure has a greater influence on corporate financial stability than short-term liquidity measures, a pattern that becomes more evident during systemic shocks. Many firms

in the ASEAN-5 region held high levels of current assets during the COVID-19 pandemic, but these assets were often tied up in receivables or inventories, which could not be quickly converted into cash. Conversely, firms with low current ratios also encountered refinancing challenges due to tighter credit conditions. Consequently, the current ratio overstated liquidity and lost its predictive power, indicating that during systemic shocks, the quality of current assets matters more than their nominal value (Ağca et al., 2023; He et al., 2022).

These findings suggest that traditional financial indicators, such as earnings and cash flow, cannot be relied upon solely to predict distress during systemic crises, such as the COVID-19 pandemic. This is likely due to financial distortions, fiscal incentives, or government policy interventions, which weaken the connection between financial indicators and the actual financial health of companies. The results emphasize the need for a more adaptive and contextual approach to risk assessment during crises, incorporating non-financial external factors such as macroeconomic policies and market dynamics.

Theoretically, the study enriches the literature on distress predictors, particularly in the context of emerging markets in the ASEAN-5 region during global crises. These findings also provide valuable insights for stakeholders, including investors and regulators, in developing more targeted risk mitigation policies based on firm characteristics, such as scale and operational age.

CONCLUSION

This research examines the impact of profits, operating cash flows, and leverage on financial distress in firms within the ASEAN-5 region during the COVID-19 pandemic. The analysis reveals that long-term leverage significantly increases the risk of financial distress, while profit, operating cash flow, and leverage measured by the current ratio do not show a significant effect. These results suggest that traditional financial metrics may not adequately capture a company's financial vulnerability during systemic crises like the pandemic. This aligns with prior studies indicating that investors in ASEAN markets found profit and operating cash flow less relevant as predictors of firm performance during the COVID-19 crisis (Abbas & Nainggolan, 2023), and that fiscal interventions temporarily reduced default risk by improving liquidity conditions in affected sectors (Igan et al., 2022).

The findings contribute to the existing literature on financial management and accounting, shedding light on the dynamics of financial distress during periods of global economic turbulence. The study also offers practical implications for investors, managers, and regulators, emphasizing the need to consider structural factors such as company size and age when assessing financial distress risk during times of economic instability.

However, this study has several limitations. First, the analysis relies solely on internal financial variables and does not account for external factors such as macroeconomic conditions or fiscal policy interventions, which played a significant role during the pandemic. Second, the observation period is limited to crisis years, making it challenging to compare distress levels across both normal and crisis conditions. Finally, the linear modeling applied may not fully capture the complex interactions among variables in highly volatile environments. Future research should incorporate macroeconomic indicators such as interest rates, inflation, and government policy interventions to better understand the external factors influencing financial distress.

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