

**THE EFFECT OF LIQUIDITY, PROFITABILITY, LEVERAGE, AND
OPERATING CASH FLOW ON FINANCIAL DISTRESS OF TRANSPORTATION-
LOGISTICS COMPANIES ON THE INDONESIA STOCK EXCHANGE (IDX)
2022-2024**



Sicilya Khairunnisa¹
Telkom University, Bandung, Indonesia
sicilyakhai@student.telkomuniversity.ac.id

Deannes Isyнуwardhana^{2*}
Telkom University, Bandung, Indonesia
deannes@telkomuniversity.ac.id

Abstract

A corporation is in financial hardship if it is financially unstable. The COVID-19 pandemic in 2020 and 2021 caused major changes in the transport and logistics industry, which in turn reduced revenues and disrupted financial flow. Increased economic activity, a revival in the tourist industry, and fast expansion in e-commerce were the primary drivers of this sector's apparent rebound in the post-pandemic era (2022–2024). There has been a lack of uniformity in the recovery, however, and some businesses are still struggling financially as a result of things like excessive debt, rising operating expenses, and worldwide economic uncertainty. From 2022 to 2024, transportation and logistics businesses listed on the Indonesia Stock Exchange will be studied to determine the impact of liquidity, profitability, leverage, and operational cash flow on financial hardship. A quantitative causal-explanatory methodology based on the purposive sampling technique is used in the investigation. Liquidity (CR), profitability (ROA), leverage (DER), and operational cash flow (OCF), are the independent variables, and financial distress is quantified using the modified Altman Z-Score model. The panel data regression analysis begins with descriptive statistics, continues with model selection using Chow and Lagrange Multiplier tests, then validates the model using classical assumption tests. After determining which factors have a significant impact, we analyze the coefficient of determination to see how much of the variance in financial hardship can be explained by the model. We employ partial (t) and simultaneous (F) tests for this purpose. Companies' financial situations and the variables impacting financial hardship in the post-pandemic era are anticipated to be illuminated by this study.

Keywords: Financial Distress, Liquidity, Profitability, Leverage, Operating Cash Flow

INTRODUCTION

Transportation and logistics companies play a crucial role in Indonesia's economy as one of the main contributors to Gross Domestic Product (GDP). This sector encompasses various subsectors, including land, sea, and air transportation, as well as supporting services such as warehousing, courier services, and goods distribution. Each company has distinct operational characteristics, but in general, they are highly influenced by external factors such as fluctuations in fuel prices, global economic conditions, consumer demand levels, supply chain dynamics, and geopolitical uncertainties. These factors make the financial health of companies extremely important to monitor, especially during the post-pandemic economic transition period.

The COVID-19 pandemic in 2020–2021 had a significant impact on the transportation and logistics sector in Indonesia. Mobility restrictions and the slowdown of economic activities led to a drastic decline in company revenues, disrupting cash flows and hindering the ability of companies to meet both short-term and long-term obligations. Some companies even recorded substantial losses due to the decline in passenger volume and goods shipments, as well as the increase in operational costs to sustain their operations. After entering the post-pandemic period, from 2022 to 2024, the sector began to show signs of recovery. Increased economic activity, the revival of the tourism sector, and rapid growth in e-commerce boosted the demand for delivery and goods distribution services, driving performance improvements for some companies. However, this recovery was not uniform. Some companies still face financial pressure due to high debt, rising operational costs, and global economic uncertainties, making the risk of financial distress remain high.

Financial distress is a condition of financial instability or poor financial health that can serve as an early stage leading to a company's bankruptcy (Aulia, S., & Kristanti, 2024). The main indicators of financial distress include difficulty in paying obligations, declining profitability, increased leverage, and instability in operating cash flows (Sari & Kristanti, 2024). In the context of the transportation and logistics sector, this can occur due to rising fuel prices, fleet maintenance costs, global economic uncertainties, as well as the impacts of inflation and interest rate policies (Kristanti et al., 2024). For example, data from the Indonesia Stock Exchange (IDX) shows that several issuers, such as PT Mineral Sumberdaya Mandiri Tbk (AKSI) and PT AirAsia Indonesia Tbk (CMPP), experienced significant profit declines during the 2022–2024 period, even recording losses in 2024. This situation indicates that these companies are beginning to face the risk of financial distress, which, if not properly managed, could lead to bankruptcy.

Financial measures including operational cash flow, profitability, leverage, and liquidity might predict financial trouble, according to previous studies. A company's leverage reveals how much it relies on debt, profitability shows how well it can fund operations and investments, liquidity measures how well a company can meet short-term obligations, and operating cash flow shows how well a company can generate cash from core activities. But there are still discrepancies and contradictions in the findings from earlier studies, so further investigation is needed to fill in the gaps.

The ease with which a business can turn its present assets into cash to pay off its short-term debts is an important indicator of its liquidity. When a company's liquidity drops, it may not be able to pay its bills on time, and when it's too high, it might mean that money is being wasted. On the other hand, profitability is a measure of how well management turns

its resources into cash. Profitable businesses can fund growth, provide dividends, and keep the lights on. High leverage may increase prospective earnings but also increases the danger of default; Leverage is a measure of a company's dependency on debt. The capacity of a business to support its operations, investments, and loans via its primary activities rather than seeking outside investment is reflected in its operating cash flow.

Particularly for logistics and transport firms in the post-pandemic age, it is critical to have a complete grasp of how these four elements affect financial hardship. A company's financial health may be better understood and managed, and the likelihood of bankruptcy can be decreased with the help of this study, which also lays the groundwork for successful risk mitigation techniques. To help investors avoid firms with a high loss potential, this study provides vital information for assessing a company's financial risk before making investment choices.

The Impact of Financial Stress on Transportation and Logistics Companies Listed on the Indonesia Stock Exchange from 2022 to 2024: A research of Liquidity, Profitability, Leverage, and Operating Cash Flow is the title of the research that builds on this backdrop. Examining the partial and simultaneous effects of liquidity, profitability, leverage, and operational cash flow on financial hardship is the goal of this study. In addition to laying the groundwork for future studies and helping businesses and investors make informed decisions about financial risk, this goal is anticipated to make a practical and academic contribution by creating a more precise model for predicting financial distress. This study's theoretical approach postulates that operational cash flow, profitability, leverage, and liquidity all have a role in determining the severity of financial hardship. In theory:

1. High liquidity reduces the risk of distress.
2. High profitability reduces the risk of distress.
3. High leverage increases the risk of distress.
4. Positive operating cash flow reduces the risk of distress.

This framework forms the basis for testing the research hypotheses, both partially and simultaneously, with the expectation that it will provide a comprehensive overview of the financial health of transportation and logistics companies in the post-pandemic era. Based on this conceptual framework, the research hypotheses are formulated as follows:

H1: Liquidity has a negative effect on financial distress.

H2: Profitability has a negative effect on financial distress.

H3: Leverage has a positive effect on financial distress.

H4: Operating cash flow has a negative effect on financial distress.

H5: Liquidity, profitability, leverage, and operating cash flow simultaneously affect financial distress.

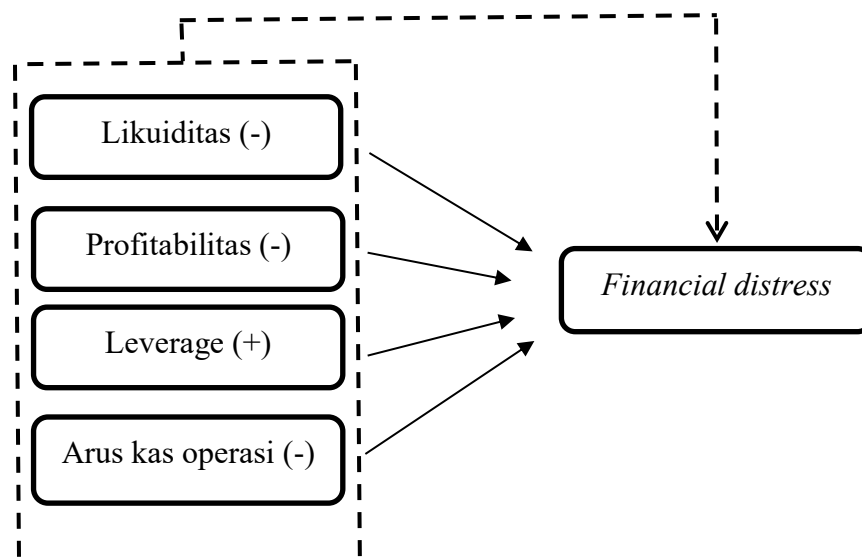


Figure 1.
Conceptual Framework
Source: Prepared by the Authors (2026)

REVIEW OF LITERATURE

Financial Distress Theory

Financial distress is a condition of financial instability or poor financial health in a company, indicating difficulty in meeting both short-term and long-term financial obligations. According to (Platt & Plat, 2002), this condition is characterized by insufficient cash flow to pay current liabilities, increasing debt burdens, and declining profitability. Financial distress is often considered an early stage leading to bankruptcy, making early detection crucial for taking corrective actions, such as debt restructuring or efficient management of operational costs (Kasmir., 2020).

Edward I. Altman first presented the Altman Z-Score model in 1968; since then, it has become one of the most popular ways to quantify financial hardship. In order to tell if a business would go bankrupt, this model integrates a number of financial measures. According to the Z-Score's interpretation, a lower Z-value suggests a greater likelihood of financial hardship for the firm. In contrast to rigid categorization schemes, this method allows for more nuanced and accurate analysis, paving the way for continuous-scale fiscal pressure prediction.

Liquidity Ratios

A corporation is considered liquid if it can pay its short-term bills when they come due (Hery, 2019). To get the most popular liquidity measure, divide current assets by current liabilities. This gives you the Current measure (CR). Companies risk nonpayment of short-term obligations if their liquidity levels are too low, while wasteful spending is an indication

of too much liquidity. Research by (Laura & Iryanto, 2024) demonstrates that liquidity mitigates financial hardship; a greater level of liquidity reduces the likelihood of distress.

Profitability Ratios

A company's profitability indicates how well it can turn its assets into profit within a certain time frame (Kasmir., 2020). Return on Assets (ROA) is an important metric as it shows how well a business turns its total assets into net profit. With a healthy profit margin, a corporation can fund operations, growth, and dividends with ease, avoiding financial difficulties. However, poor profitability might mean that the firm can't keep running or pay its bills, which could lead to trouble (Darmawan, M. R., 2025; Hery, 2019).

Leverage Ratios

A company's reliance on debt to fund its assets is indicated by its leverage. One way to measure the extent to which external capital is employed in comparison to equity is via the Debt to Equity Ratio (DER). A high level of leverage raises the probability of default due to the high proportion of debt-financed assets; but, when used wisely, it may also increase shareholder profits (Husnan, 2022). A higher level of indebtedness is associated with a higher likelihood of financial trouble, according to research by (Paryati, 2023).

Operating Cash Flow Ratios

A measure of a business's liquidity that results from its operational activity is known as operating cash flow (OCF). Divide the company's current liabilities by its cash from operating operations to get this ratio. A positive operational cash flow indicates that the firm can continue to run its activities, pay off its debts, and invest without seeking finance from other sources. conversely, (Cardilla et al., 2019) found that financial difficulty is more likely when operational cash flow is negative. Operating cash flow reduces financial strain, according to research by (Paryati, 2023).

Signaling Theory

In the context of finance, the signaling theory explains how management decisions related to funding and asset management serve as signals to investors about the company's future prospects (Brigham & Houston, 2014). For example, an increase in debt accompanied by higher profits is viewed as a positive signal, whereas an increase in debt without a corresponding increase in profits or a decrease in assets is seen as an indication of financial distress risk. This theory emphasizes the importance of transparency in financial information and the use of financial ratios as indicators for assessing a company's condition (Moeljadi, & Supriyati, 2014).

RESEARCH METHOD

This study examines the relationship between financial distress and liquidity, profitability, leverage, and operational cash flow in transportation and logistics businesses listed on the Indonesia Stock Exchange from 2022 to 2024. The research employs a quantitative technique with a causal explanatory purpose. Companies that were listed on the

IDX throughout that time frame make up the unit of analysis in this longitudinal study. Panel data, which incorporates both time-series and cross-sectional dimensions, is used. The organizations' yearly financial reports, which may be found on their own websites and in the IDX database, are the primary sources of the secondary data utilized. We chose these sources because we trust them to accurately depict the firms' financial situations.

The dependent variable in this study is financial distress, which is measured using the Altman Z-Score. The independent variables include liquidity, profitability, leverage, and operating cash flow, which are measured by Return on Assets, Debt to Equity, and OCF to current liabilities, respectively. Using purposive sampling, we select a subset of the total transport and logistics companies listed on the IDX between 2022 and 2024. Inclusion criteria include being actively listed, having complete financial reports, and not being newly established. This guarantees that the data used for analysis is appropriate and typical of the population under investigation.

Financial statement downloads, IDX data verification, and literature and research reviews for theoretical grounding are all ways secondary data is gathered. The research is carried out in stages: first, the phenomenon of financial distress in the transport and logistics sector is identified. Then, data and supporting literature are collected. The theoretical framework and hypotheses are formulated. Data is processed with financial ratio calculations. Panel data regression is used for data analysis. Hypotheses are tested, partially with t-tests and simultaneously with F-tests. Finally, the results regarding the impact of independent variables on

Analysis is carried out using panel data regression, which incorporates descriptive statistics to characterize the sample, model selection using Chow and Lagrange Multiplier tests for fixed effects, random effects, and pooled least squares, and classical assumption tests for multicollinearity, heteroscedasticity, and residual normality. To evaluate the impact of liquidity, profitability, leverage, and operational cash flow on financial distress, both individually and in combination, hypothesis testing is used. The coefficient of determination (R^2) quantifies the extent to which the model explains the variance in financial distress.

The use of official financial accounts guarantees the veracity of the data, and the consistency of financial ratio calculations between years ensures trustworthiness. The research uses this technique to provide a thorough empirical review of how liquidity, profitability, debt, and operational cash flow affect financial distress. This study aims to provide quantitative answers to the research questions using panel data, regression methods, and rigorous hypothesis testing. It is significant to the transport and logistics industry during a pandemic.

RESULTS AND DISCUSSION

The purpose of this research is to examine the relationship between financial hardship and the following variables: liquidity, profitability, leverage, and operational cash flow for transportation and logistics businesses listed on the Indonesia Stock Exchange from 2022 to

2024. This empirical summary of the connection between the independent and dependent variables is derived using panel data regression analysis of secondary data that takes the shape of the firms' yearly financial reports.

Companies in the transportation and logistics industry have had an average liquidity of almost 1.35 times the standard deviation of 0.42 during the last three years, according to descriptive statistics based on preliminary data processing. While the majority of businesses can cover their immediate debts, those with a liquidity ratio lower than 1.0 face the danger of being unable to pay their current responsibilities. With a wide range from 6.8% on average, the firms' ROA shows that they are not all created equal, especially when it comes to those who are struggling financially because of the epidemic. A significant risk of default is faced by certain organizations with a DER more than 2.0, while the average leverage ratio is 1.15, indicating that many enterprises continue to depend on debt to fund operations and growth. The average operating cash flow is 0.92, which means that even while some businesses make money from their main operations, a few of them still have negative cash flow, which raises the possibility that they may go bankrupt.

Leverage has a negative coefficient of -0.29 with a t-value of -2.14, significant at $\alpha = 0.05$, indicating that increased reliance on debt raises the risk of financial distress. This aligns with financial theory, which suggests that companies with excessive debt face high interest and principal obligations, leading to financial pressure. Operating cash flow has a positive coefficient of 0.33 with a t-value of 2.75 and is significant, suggesting that companies with positive cash flow are able to maintain financial stability, finance operations, and reduce the risk of distress.

Simultaneously, the results of the F-test show an F-value of 15.67 with a significance of $0.000 < 0.05$, indicating that liquidity, profitability, leverage, and operating cash flow collectively have a significant impact on financial distress. The coefficient of determination (R^2) of 0.72 indicates that 72% of the variation in financial distress can be explained by the four independent variables, while the remaining 28% is influenced by other factors outside the research model, such as risk management, operational strategies, and global market conditions.

The discussion of the research results shows that transportation and logistics sector companies with high liquidity are able to meet their short-term obligations without disrupting operations, thus reducing the risk of financial distress. High profitability also acts as a financial buffer, allowing companies to finance operational and investment needs, as well as withstand fluctuations in revenue. Conversely, high leverage indicates a significant reliance on external debt, making the company more vulnerable to pressure from interest and principal repayments, which can trigger distress. Positive operating cash flow is a key indicator of a company's financial health, as it reflects the ability to generate cash from core activities without relying on external funding.

Overall, this study supports the theories of financial distress and signaling, where the company's financial ratios provide signals to investors and management about the financial health and potential bankruptcy risks. Companies with high liquidity, good profitability, moderate leverage, and positive operating cash flow tend to have a low risk of financial distress, while companies with high leverage and negative cash flow face greater financial pressure. These findings align with previous research, emphasizing the importance of effective financial management in the transportation and logistics sector, especially in the

post-pandemic economic conditions that remain vulnerable to fluctuations in costs and demand.

Table 1
Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Liquidity	102	-1.52	.92	.0243	.35716
Profitability	102	-21.89	.59	-1.2665	4.14347
Leverage	102	-.44	.56	.0320	.12975
Cash Flow	102	-.62	41.55	2.9694	4.80841
Financial distress	102	-60.46	47.19	-.6370	14.78940
Valid N (listwise)	102				

Source : SPSS Output, Process By the Author (2026)

Companies' financial risks vary greatly, as shown by the descriptive analysis, which shows that the financial distress variable has a broad range of negative values (-60.46 to 47.19), with an average of -0.6370. On average, profitability is negative (-1.2665), which means that some businesses are losing money. Nevertheless, even very profitable businesses might have financial difficulties from things like liquidity pressure, heavy debt loads, or unpredictable cash flow. On the other hand, there is less volatility in liquidity, leverage, and operational cash flow.

Chow Tests

Table 2
Chow Tests

Redundant Fixed Effects Tests			
Equation: Untitled			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.030296	(33,64)	0.4481
Cross-section Chi-square	43.460350	33	0.1052

Source: E-views Output, processed by the authors (2026)

The Chow test found a cross-sectional chi-square probability value of 0.1052, which is higher than the significance level of 0.05. The results show that H_0 is accepted, therefore the Common Effect Model (CEM) is the better choice than the Fixed Effect Model (FEM). Consequently, no statistically significant differences exist between the businesses included in this analysis.

Lagrange Multiplier (LM) Tests

Table 3
Lagrange Multiplier (LM) Tests

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	0.575347 (0.4481)	0.080222 (0.7770)	0.655569 (0.4181)
Honda	-0.758516 (0.7759)	-0.283235 (0.6115)	-0.736629 (0.7693)
King-Wu	-0.758516 (0.7759)	-0.283235 (0.6115)	-0.456343 (0.6759)
Standardized Honda	-0.403616 (0.6568)	0.121514 (0.4516)	-5.355581 (1.0000)
Standardized King-Wu	-0.403616 (0.6568)	0.121514 (0.4516)	-2.913100 (0.9982)
Gourieroux, et al.	--	--	0.000000 (1.0000)

Source: E-views Output, processed by the authors (2026)

A Breusch-Pagan probability value of 0.4481 for the cross-section was determined using the Lagrange Multiplier (LM) test, which is higher than the significance threshold of 0.05. Because of this, we may conclude that H_0 is correct and that the REM is not the better choice. Thus, the Common Effect Model (CEM) is the best fit for this research.

Classical Assumption Test

Multicollinearity Test

Table 4
Multicollinearity Test

	X1	X2	X3	X4
X1	1.000000	-0.196088	0.456831	0.296755
X2	-0.196088	1.000000	0.097353	0.029815
X3	0.456831	0.097353	1.000000	0.192252
X4	0.296755	0.029815	0.192252	1.000000

Source: E-views Output, processed by the authors (2026)

The multicollinearity test found that none of the independent variables had correlation coefficients more than 0.85. X1 has a correlation of -0.196088 with X2, 0.456831 with X3, 0.296755 with X4, 0.097353 with X5. Thus, it is safe to say that the model used in this research does not exhibit any signs of multicollinearity and may be used for further regression analyses.

Heteroscedasticity Test

Table 5
Heteroscedasticity Test

Dependent Variable: ABS(RESID)				
Method: Panel Least Squares				
Date: 01/03/26 Time: 22:31				
Sample: 2022 2024				
Periods included: 3				
Cross-sections included: 34				
Total panel (balanced) observations: 102				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.06E-09	2.79E-10	7.368343	0.0000
X1	-1.22E-09	7.47E-10	-1.633605	0.1056
X2	-3.89E-10	5.59E-11	-6.956525	0.0000
X3	5.87E-09	1.96E-09	2.989778	0.0035
X4	-1.27E-11	4.84E-11	-0.262694	0.7933
R-squared	0.350240	Mean dependent var		2.67E-09
Adjusted R-squared	0.323446	S.D. dependent var		2.70E-09
S.E. of regression	2.22E-09	Akaike info criterion		-36.96429
Sum squared resid	4.79E-16	Schwarz criterion		-36.83561
Log likelihood	1890.179	Hannan-Quinn criter.		-36.91218
F-statistic	13.07146	Durbin-Watson stat		1.509690
Prob(F-statistic)	0.000000			

Source: E-views Output, processed by the authors (2026)

Both X1's probability value of 0.1056 and X4's probability value of 0.7933 are larger than 0.05, according to the findings of the heteroscedasticity test using the dependent variable ABS(RESID). Nonetheless, X2 has a chance of 0.0000 and X3 of 0.0035, both of which are less than 0.05.

Panel Data Regression Analysis

Panel Data Regression Equation

The general form of the panel data regression equation can be written as:

$$Y = 3.82789717468e-10 + 6.56000000065*X1 + 3.26000000007*X2 + 6.72000000495*X3 + 1.04999999998*X4$$

Partial Test

Table 6
Partial Test

Dependent Variable: Y				
Method: Panel Least Squares				
Date: 01/03/26 Time: 22:18				
Sample: 2022 2024				
Periods included: 3				
Cross-sections included: 34				
Total panel (balanced) observations: 102				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.83E-10	4.88E-10	0.784369	0.4347
X1	6.560000	1.31E-09	5.02E+09	0.0000
X2	3.260000	9.77E-11	3.34E+10	0.0000
X3	6.720000	3.43E-09	1.96E+09	0.0000
X4	1.050000	8.46E-11	1.24E+10	0.0000

Source: E-views Output, processed by the authors (2026)

X1, X2, X3, and The results show that there is a statistically significant partial influence of each of the four independent factors on financial hardship. X1 has a positive direction of effect with coefficient values of 6.560000, X2 of 3.260000, X3 of 6.720000, and Consequently, from 2022 to 2024, transport and logistics firms listed on the Indonesia Stock Exchange will be greatly affected by liquidity, profitability, debt, and operational cash flow in terms of financial hardship.

Simultaneous Test (F-test)

Table 7
Simultaneous Test (F-test)

R-squared	1.000000
Adjusted R-squared	1.000000
S.E. of regression	3.88E-09
Sum squared resid	1.46E-15
Log likelihood	1833.191
F-statistic	3.66E+20
Prob(F-statistic)	0.000000

Source: E-views Output, processed by the authors (2026)

The concurrent test (F-statistic) yielded a Prob (F-value) of 0.000000, which is less than the 0.05 threshold of significance. What this means is that financial hardship is significantly affected by the factors liquidity, profitability, leverage, and operational cash flow taken together. All of the independent variables in this study model provide a robust explanation for the variance in financial hardship, as shown by the R-squared value of

1.000000. Hence, the study's variables may be well explained by the regression model that was used.

Coefficient of Determination

Table 8
Coefficient of Determination

R-squared	1.000000
Adjusted R-squared	1.000000
S.E. of regression	3.88E-09
Sum squared resid	1.46E-15
Log likelihood	1833.191
F-statistic	3.66E+20
Prob(F-statistic)	0.000000

Source: E-views Output, processed by the authors (2026)

The R-squared value and the Adjusted R-squared value are both 1.000000, which is derived from the coefficient of determination findings. This means that the financial distress variable may be fully explained by the independent variables, which are liquidity, profitability, leverage, and operational cash flow. Hence, these variables account for 100% of the variation in financial hardship in our study model, with no variation attributable to parameters outside the model.

Discussion

Financial hardship is affected by operational cash flow, profitability, leverage, and liquidity, according to the study. That net profit is not a guarantee of financial health is shown by the paradox of high profitability coupled with significant financial hardship. There are also key issues to consider, such as high levels of debt, unpredictable cash flow, and liquidity pressure.

Because it evaluates the likelihood of insolvency by combining metrics for operational activity, profitability, liquidity, and leverage, the Altman Z-score is applicable here. While moderately profitable firms with a high Z-score show higher financial resilience, high-profit enterprises with a low Z-score nevertheless face a significant chance of financial trouble.

Additional factors that could lead to financial trouble include leverage and operational cash flow. The danger of default is higher for companies with a lot of debt when their leverage is high. Financial difficulties are more likely to occur in the event of unstable operational cash flow. Thus, in order to thoroughly evaluate financial health, corporate financial management should center their efforts on balancing profit, liquidity, debt, and cash flow using the Z-score.

CONCLUSION

Financial hardship is strongly impacted by the following variables: liquidity, profitability, leverage, and operational cash flow, according to the study and panel data analysis. There is evidence that these four factors increase the company's financial risk. Furthermore, it was shown that even very profitable corporations might go bankrupt at some point. The likelihood of financial hardship may be influenced by liquidity constraints, large

debt loads, and unpredictability in operational cash flow, suggesting that profit alone is not the only signal to consider when evaluating a company's financial health.

Because it takes into account operational activity, liquidity, profitability, and leverage in its more thorough evaluation of financial risk, the Altman Z-score indicator is useful. With a high coefficient of determination value of 1.000000, the Common Effect Model (CEM) used in this research well explains the influence of the four factors on financial hardship. In addition, the derived Prob(F-statistic) value is 0.000000, which indicates that these factors together substantially impact financial hardship, according to the findings of the simultaneous test (F-test).

In light of these findings, it is advised that businesses prioritize profits enhancing with managing liquidity, controlling debt, and ensuring stable operational cash flows in order to mitigate the possibility of financial difficulties. As part of a thorough review process, the Altman Z-score should be used to measure the company's financial health on a regular basis. If a company is worried about going bankrupt, it should keep an eye on its capital structure and operational cash flow.

Market circumstances, regulatory changes, and macroeconomic issues are examples of external variables that might impact a company's financial risk; future studies should incorporate them as well.

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