

THE EFFECT OF LIQUIDITY, LEVERAGE, PROFITABILITY, AND ACTIVITY ON FINANCIAL DISTRESS IN FOOD AND BEVERAGE COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE (2020–2024)



Vanessa Eryna Anabel Simanjuntak¹
Universitas Telkom, Bandung, Indonesia
vanessaeryna@student.telkomuniversity.ac.id

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

Abstract

Financial distress refers to a decline in a company's financial condition that must be detected early before it develops into bankruptcy or liquidation. Although the food and beverage subsector plays an important role in the Indonesian economy, companies in this sector still face risks due to economic instability, suboptimal liability management, and low asset efficiency. This study aims to analyze the effect of liquidity, leverage, profitability, and activity on financial distress in food and beverage subsector companies listed on the Indonesia Stock Exchange during the 2020–2024 period. Signal theory is used to explain the role of financial ratios as information for investors and creditors in assessing the risk of corporate financial failure. This research employs a descriptive quantitative approach using secondary data from annual reports and financial statements. The sample is selected through purposive sampling. Data analysis includes descriptive statistics, classical assumption tests, and multiple linear regression to examine the effect of independent variables on financial distress. The findings are expected to provide practical benefits for management in formulating effective financial risk prevention strategies.

Keywords: Activity, Financial Distress, Leverage, Liquidity, Profitability

INTRODUCTION

The food and beverage industry is a manufacturing subsector that makes a significant contribution to Indonesia's economy. In the first quarter of 2025, this sector accounted for approximately 41.15% of the non-oil and gas industrial GDP and 7.2% of national GDP (Investing, 2025). During the COVID-19 pandemic, the sector remained resilient while many other sectors experienced contraction (Saleh, 2020), and subsequently showed recovery marked by increased production and domestic consumption (Handoyo, 2021). In 2023, its exports reached USD 41.7 billion, making it one of the country's key sources of foreign exchange earnings (Deny, 2023). The government has also designated this sector as a priority for development to support national economic growth (Widianto, 2021).

Although this sector is relatively resilient, intense competition and economic fluctuations require companies to remain vigilant regarding the risk of declining financial health. One of the primary risks that must be detected early is financial distress, which refers to a deterioration in financial condition prior to bankruptcy or liquidation, serving as an early warning signal for management to implement corrective actions (Anisa et al., 2023; Kalbuana et al., 2022). Its indicators can be observed through a sustained decline in profitability and weakening liquidity, reflected in difficulties in meeting obligations to creditors (Anisa et al., 2023). Therefore, companies need to conduct in-depth financial analysis to identify the potential for financial distress at an early stage (Kalbuana et al., 2022).

The phenomenon of financial distress in the food and beverage subsector can be observed in the case of PT Tiga Pilar Sejahtera Food Tbk. The company recorded a net loss of IDR 60 billion in the third quarter of 2020, although this was lower compared to the previous period (Saleh, 2020). This financial pressure continued into 2022 when AISA again experienced a loss of IDR 62.36 billion, indicating that the improvement in its financial condition had not been fully achieved (CNBC Indonesia, 2023).

A similar phenomenon was experienced by PT Tri Banyan Tirta Tbk, a bottled water issuer listed on the Indonesia Stock Exchange. In the first half of 2024, the company recorded an increase in net losses from IDR 6.28 billion to IDR 10.77 billion (Rhamadanty, 2023). The company also faced a Suspension of Debt Payment Obligation (PKPU) lawsuit due to debts amounting to IDR 10.5 billion (CNBC Indonesia, 2024). To improve cash flow conditions, ALTO undertook financial restructuring and divested its manufacturing assets (Investing, 2025). These conditions indicate significant financial pressure and suggest a potential risk of financial distress.

In 2024, PT Indofood Sukses Makmur Tbk also experienced financial pressure, marked by a net loss of IDR 119 billion in the fourth quarter, in contrast to its previously profitable performance. This condition was mainly driven by foreign exchange losses due to the depreciation of the Indonesian rupiah against the US dollar, as well as losses from overseas associated entities, which further weakened the company's financial position. To maintain profitability amid challenging market conditions, the company needs to strictly control operating costs even though revenue continues to increase (Nabila, 2025).

Recurring losses indicate a persistent threat to firms' financial health and demonstrate that the food and beverage subsector continues to face a risk of financial distress. This condition reinforces the importance of early detection through comprehensive financial analysis, enabling management to identify potential problems and formulate corrective strategies before the situation deteriorates further.

One of the most commonly used methods to analyze the potential for financial distress is financial ratio analysis, which reflects a company's liquidity, leverage, profitability, and activity. Liquidity ratios indicate a company's ability to meet its short-term obligations (Kasmir, 2022). Leverage ratios measure the extent to which a company's assets are financed by debt. Profitability ratios assess the company's ability to generate profits within a specific period, while activity ratios measure the efficiency of a company's daily operational performance (Kasmir, 2022).

Theoretically, this study is based on signaling theory. One credible signal in this context is a high level of leverage. This is because an increase in debt is associated with a higher risk of bankruptcy, meaning that only firms with strong performance and good prospects tend to be willing to use large amounts of debt. Conversely, financially weaker firms are unable to imitate this signal due to their limited financial capacity. Thus, investors can differentiate firm quality through the company's capital structure.

In this context, financial distress is considered a negative signal that firms aim to avoid, while healthy financial ratios—such as controlled leverage, high profitability, strong liquidity, and efficient activity—serve as positive signals that indicate financial soundness and business sustainability to the market.

Various studies have examined the determinants of financial distress; however, the results remain inconsistent. Anisa et al. (2023) found that liquidity, leverage, and activity significantly affect financial distress in food and beverage companies during the 2017–2021 period, while profitability has no significant effect. The study also indicates differences in financial ratios before and during the COVID-19 pandemic.

Meanwhile, Fildzah and Rachmawati (2025), in their study of food and beverage companies during the 2021–2023 period, found that the effect of financial ratios depends on the proxies used. The current ratio has a negative effect on financial distress, whereas the quick ratio shows a positive effect. For profitability, return on assets has a negative effect, while return on equity does not exhibit a negative effect on financial distress.

Wahyuni et al. (2025) reported different findings in state-owned enterprises (SOEs) during the 2018–2022 period. Liquidity was found to have a significant negative effect on financial distress, while profitability showed a significant positive effect. Meanwhile, leverage was found to have a significant negative effect on financial distress.

These findings indicate inconsistencies in the results (research gap) regarding the factors influencing financial distress. The divergent results, particularly in profitability and leverage, suggest that this issue remains relevant for further investigation within specific sectors and periods. This study is based on the works of Anisa et al. (2023), Fildzah & Rachmawati (2025), and Wahyuni et al. (2025).

Food and beverage subsector companies listed on the Indonesia Stock Exchange during the 2020–2024 period were selected because they make a major contribution to the Indonesian economy, yet still face the risk of financial distress. The case of losses experienced by PT Tiga Pilar Sejahtera Food Tbk in 2020 and 2022 demonstrates that not all companies in this subsector maintain sound financial conditions. This situation highlights the need for a more in-depth analysis to comprehensively identify the factors influencing financial distress. The selection of several companies within this subsector is expected to provide an overall picture of industry financial conditions as well as variations in performance among firms.

This study aims to examine the effect of liquidity, leverage, profitability, and activity on financial distress in food and beverage subsector companies listed on the Indonesia Stock Exchange during the 2020–2024 period. The focus on financial ratios is expected to provide a more comprehensive understanding of financial health signals for both management and investors, as well as to support strategic decision-making in mitigating financial distress risk.

The strength of this study lies in its specific subsector focus and its coverage of a period that includes the COVID-19 pandemic, thereby capturing more comprehensive financial dynamics. In addition, this research employs four key financial ratio variables to provide a more holistic evaluation of financial distress potential, while also updating previous findings using different samples and time periods.

The findings of this study are relevant for corporate management, investors, and other stakeholders. Management can use the results as a basis for formulating preventive and corrective strategies, while investors can utilize them to assess the financial health of companies more accurately. Thus, this study provides both academic and practical contributions in understanding the factors influencing financial distress in the food and beverage subsector.

REVIEW OF LITERATURE

Signaling Theory

Signaling theory explains how companies reduce information asymmetry by providing financial information to investors and creditors (Spence, 1973). Positive signals, such as strong liquidity, profitability, and operational performance, can increase market confidence and indicate better financial conditions. Conversely, weak financial signals may increase the risk of financial distress (Ramadini, 2023; Dewi et al., 2022; Anisa et al., 2023).

Financial Distress

According to Altman and Hotchkiss (2005), financial distress refers to a condition in which a company is unable to meet its financial obligations on time, which may ultimately lead to bankruptcy if not promptly addressed. This condition reflects a significant decline in liquidity and solvency, making it difficult for the company to obtain funding, maintain investor confidence, and sustain its operational activities (Ramadini, 2023).

Liquidity Ratio

Liquidity ratios measure a company's ability to meet short-term obligations (Kasmir, 2022). The current ratio, calculated by dividing current assets by current liabilities, is commonly used to assess liquidity. A higher current ratio indicates better short-term financial capacity and may reduce the risk of financial distress, especially in the food and beverage sector (Dewi et al., 2022; Anisa et al., 2023). Conversely, a low current ratio may signal financial difficulties.

Leverage Ratio

Leverage ratios are used to measure a company's ability to meet all of its obligations, both short-term and long-term, in the event of liquidation (Kasmir, 2022). The debt-to-equity ratio is commonly used to assess the proportion of debt relative to equity and is calculated by dividing total debt by total equity (Anisa et al., 2023). According to Kasmir (2019), a high debt-to-equity ratio indicates greater financial risk because the company must bear higher interest expenses and debt obligations, which may threaten business continuity. In addition,

Fachrudin and Ihsan (2021) stated that a high debt-to-equity ratio may increase the likelihood of financial distress, particularly when economic and market conditions weaken.

Profitability Ratio

Profitability ratios are used to assess a company's ability to generate profits and evaluate management effectiveness (Kasmir, 2022). Return on Assets (ROA) is commonly used as the main indicator because it reflects the effectiveness of asset utilization in generating net income. ROA is calculated by dividing net income by total assets. A higher ROA indicates better asset management and may reduce the risk of financial distress (Fachrudin & Ihsan, 2021; Ramadini, 2023). However, Anisa et al. (2023) found that profitability did not have a significant effect on financial distress during the COVID-19 pandemic, suggesting that external factors may also influence a company's financial condition.

Activity Ratio

Activity ratios are used to measure a company's effectiveness in utilizing its assets and to assess its ability to carry out daily operational activities (Kasmir, 2022). One commonly used indicator is Total Asset Turnover (TATO), which measures the efficiency of total asset utilization and is calculated by dividing net sales by total assets (Wijaya & Melly, 2024). The study by Wijaya and Melly (2024) found that a strong activity ratio may reduce the risk of financial distress by improving asset-use efficiency and accelerating capital turnover.

RESEARCH METHOD

This study employs a quantitative approach grounded in the philosophy of positivism to examine the relationships among variables through statistical analysis. The approach is intended to test hypotheses regarding the effects of liquidity, leverage, profitability, and activity ratios on financial distress among food and beverage subsector companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period. This study adopts a deductive approach, in which existing theories are tested using empirical data derived from corporate financial statements.

The study is classified as descriptive and causal associative research. The descriptive method is used to provide an overview of the research variables, while the causal associative method is applied to analyze the cause-and-effect relationships between the independent variables and financial distress. The data used in this study are secondary data obtained from annual financial reports published by the Indonesia Stock Exchange and the official websites of the respective companies.

This study uses panel data, combining cross-sectional and time-series data over the 2020–2024 period. The population consists of all food and beverage subsector companies listed on the Indonesia Stock Exchange. The sample was selected using purposive sampling based on predetermined criteria, resulting in 68 companies and a total of 340 observations. The data were analyzed using panel data regression analysis, which included descriptive statistics, classical assumption tests, model selection tests involving the Common Effect Model, Fixed Effect Model, and Random Effect Model, as well as hypothesis testing through the F-test, t-test, and coefficient of determination. The entire analysis was conducted to determine the simultaneous and partial effects of the independent variables on financial distress.

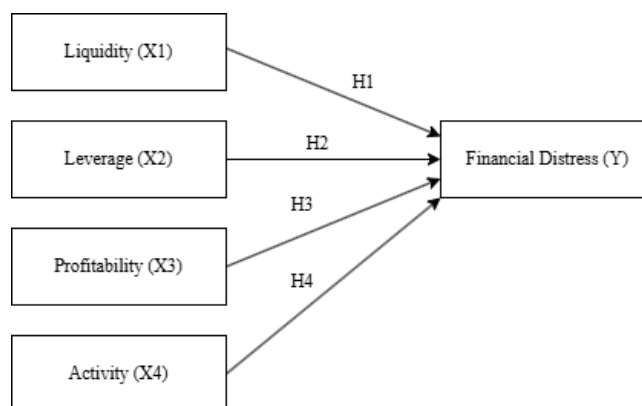
Research Hypothesis

Based on the conceptual framework above, the hypotheses of this study are formulated as follows:

- H1:** Liquidity ratio (X1) has a negative effect on financial distress. This means that the higher a company's liquidity, the lower the risk of experiencing financial distress.
- H2:** Leverage ratio (X2) has a positive effect on financial distress. The higher the use of debt (leverage), the greater the likelihood that a company will experience financial distress.
- H3:** Profitability ratio (X3) has a negative effect on financial distress. Higher profitability reduces the risk of financial difficulties.
- H4:** Activity ratio (X4) has a negative effect on financial distress. Higher efficiency in asset utilization reduces the likelihood of a company experiencing financial distress.

Research Model

This study examines the effects of liquidity (X1), leverage (X2), profitability (X3), and activity ratio (X4) on financial distress (Y). Based on signaling theory, these financial ratios provide information about a company's financial condition. Previous studies also indicate that financial ratios are related to financial distress, forming the basis for the proposed hypotheses (Spence, 1973; Anisa et al., 2023; Ramadini, 2023; Wijaya & Melly, 2024).



RESULTS AND DISCUSSION

Panel Data Regression Analysis

This study uses panel data regression in EViews to examine the effects of CR, DER, ROA, and TATO on financial distress measured by the modified Altman Z-Score. The analysis includes classical assumption tests and model selection using the Chow, Hausman, and Lagrange Multiplier tests.

Classical Assumption Test

Multicollinearity Test

According to Ghozali and Ratmono (2017), The multicollinearity test examines whether independent variables are highly correlated in a regression model (Ghozali & Ratmono, 2017). A correlation value above 0.80 indicates multicollinearity, while a value below 0.80 indicates that the model is free from multicollinearity.

Table 1.
Multicollinearity Test Results

	X1 (CR)	X2 (DER)	X3 (ROA)	X4 (TATO)
X1 (CR)	1.000000	-0.136996	-0.025322	0.031739
X2 (DER)	-0.136996	1.000000	-0.010605	-0.026051
X3 (ROA)	-0.025322	-0.010605	1.000000	0.003683
X4 (TATO)	0.031739	-0.026051	0.003683	1.000000

Source: Data Processed Using EViews (2026)

Based on the test results presented in Table 1, all correlation coefficients among the independent variables are below 0.80. The highest correlation is observed between the Debt-to-Equity Ratio (X2) and the Current Ratio (X1), with a value of -0.136996 , which remains far below the tolerance threshold. Therefore, it can be concluded that there is no indication of multicollinearity, and the regression model fulfills the classical assumption.

Heteroscedasticity Test

Table 2.
Heteroscedasticity Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.955258	0.095542	9.998306	0.0000
X1_CR	-0.011233	0.027160	-0.413595	0.6794
X2_DER	-0.008155	0.010121	-0.805755	0.4210
X3_ROA	-0.006368	0.008461	-0.752635	0.4522
X4_TATO	-0.048867	0.038998	-1.253082	0.2110

Source: Data Processed Using EViews (2026)

Based on the heteroscedasticity test results presented in Table 2, all independent variables have probability values above 0.05, namely CR (0.6794), DER (0.4210), ROA (0.4522), and TATO (0.2110). This indicates that H_0 is accepted, meaning that there is no heteroscedasticity problem in the model. Therefore, the regression model is considered appropriate for panel data analysis.

Panel Data Regression Model Selection

Common Effect Model or Fixed Effect Model Significance Test

The Chow test is used to determine the most appropriate model between the Common Effect Model (CEM) and the Fixed Effect Model (FEM) in panel data analysis. The hypotheses are formulated as follows: H_0 : CEM and H_1 : FEM.

The decision is based on the Cross-section Chi-square probability value. If the probability value is less than 0.05, H_0 is rejected and the FEM is selected. Conversely, if the probability value is greater than 0.05, H_0 is accepted and the CEM is selected.

Tabel 3
Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	27.044709	(67,268)	0.0000
Cross-section Chi-square	696.705567	67	0.0000

Source: Data Processed Using EViews (2026)

Based on the Chow test results presented in Table 3, the Cross-section Chi-square probability value is 0.0000, which is below 0.05. Therefore, H0 is rejected and H1 is accepted. Accordingly, the Fixed Effect Model (FEM) is selected as the appropriate panel data regression model for this study.

Fixed Effect Model or Random Effect Model Significance Test

The Hausman test is used to determine the most appropriate model between the Fixed Effect Model (FEM) and the Random Effect Model (REM) in panel data analysis. The hypotheses are formulated as follows: H0: REM and H1: FEM.

The decision is based on the cross-sectional random probability value. If the probability value is less than 0.05, H0 is rejected and the FEM is selected. Conversely, if the probability value is greater than 0.05, H0 is accepted and the REM is selected.

Table 4
Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	26.368690	4	0.0000

Source: Data Processed Using EViews (2026)

Based on the Hausman test results presented in Table 4, the Cross-section random probability value is 0.0000, which is below 0.05. Therefore, H0 is rejected and H1 is accepted. Accordingly, the Fixed Effect Model (FEM) is selected as the appropriate panel data regression model for this study.

Results of Panel Data Regression Model Selection

Based on the results of the Chow test and Hausman test, it can be concluded that the Fixed Effect Model (FEM) is the most appropriate panel data regression model used in this study.

Table 5
Fixed Effect Model Significance Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.942839	0.220076	4.284152	0.0000
X1_CR	1.139419	0.083349	13.67041	0.0000
X2_DER	-0.030315	0.016869	-1.797069	0.0735
X3_ROA	0.009171	0.013703	0.669246	0.5039
X4_TATO	0.149451	0.077066	1.939271	0.0535

Source: Data Processed Using EViews (2026)

Based on the test results presented in Table 5, the panel data regression equation is formulated as follows:

$$FD = 0.942839 + 1.139419X1 - 0.030315X2 + 0.009171X3 + 0.149451X4 + e$$

Where:

FD = Financial Distress

X1 = Liquidity Ratio

X2 = Leverage Ratio

X3 = Profitability Ratio

X4 = Activity Ratio

e = Error Term

The panel data regression equation can be interpreted as follows:

1. The constant value (C) of 0.942839 indicates that when all independent variables are equal to zero, the financial distress value is 0.942839.
2. The liquidity coefficient (X1) of 1.139419 indicates that a one-unit increase in liquidity will increase financial distress by 1.139419, assuming that the other variables remain constant.
3. The leverage coefficient (X2) of -0.030315 indicates that a one-unit increase in leverage will decrease financial distress by 0.030315, assuming that the other variables remain constant.
4. The profitability coefficient (X3) of 0.009171 indicates that a one-unit increase in profitability will increase financial distress by 0.009171, holding the other variables constant.
5. The activity ratio coefficient (X4) of 0.149451 indicates that a one-unit increase in activity will increase financial distress by 0.149451, assuming that the other variables remain constant.

Hypothesis Testing

Coefficient of Determination Analysis (R^2)

The coefficient of determination test is used to measure the ability of the model to explain variations in the dependent variable (Ghozali & Ratmono, 2017). Its value ranges from 0 to 1, where a low value indicates that the independent variables have limited ability to explain the dependent variable, while a value closer to 1 indicates that the model has a stronger explanatory ability. In this study, the coefficient of determination is measured using the Adjusted R-squared value.

Tabel 6
Coefficient of Determination (R^2)

Root MSE	1.361948	R-squared	0.946328
Mean dependent var	3.590283	Adjusted R-squared	0.932109
S.D. dependent var	5.887457	S.E. of regression	1.534025
Akaike info criterion	3.879238	Sum squared resid	630.6664
Schwarz criterion	4.690073	Log likelihood	-587.4705
Hannan-Quinn criter.	4.202321	F-statistic	66.55396
Durbin-Watson stat	1.499169	Prob(F-statistic)	0.000000

Source: Data Processed Using EViews (2026)

Based on Table 6, the Adjusted R-squared value of 0.932109 (93.21%) indicates that liquidity, leverage, profitability, and activity ratios are able to explain 93.21% of the variation in financial distress, while the remaining 6.79% is influenced by other factors outside the model.

Furthermore, the F-statistic test is used to determine the simultaneous effect of the independent variables on the dependent variable. The hypotheses are formulated as follows: H0 states that all independent variables do not simultaneously affect the dependent variable, whereas H1 states that all independent variables simultaneously affect the dependent

variable. Based on Table 5, the Prob(F-statistic) value is 0.000000, which is below 0.05; therefore, H₀ is rejected. Thus, liquidity, leverage, profitability, and activity ratios simultaneously have a significant effect on financial distress.

t-Test Result

The t-statistic test is used to examine the partial effect of each independent variable on the dependent variable. The hypotheses are formulated as follows: H₀ states that an independent variable has no significant partial effect on the dependent variable, whereas H₁ states that an independent variable has a significant partial effect on the dependent variable. The decision criterion is based on the probability value: if the probability value is less than 0.05, H₀ is rejected and H₁ is accepted; conversely, if the probability value is greater than 0.05, H₀ is accepted and H₁ is rejected.

Table 6
Partial Significance Test Results (t-Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.942839	0.220076	4.284152	0.0000
X1_CR	1.139419	0.083349	13.67041	0.0000
X2_DER	-0.030315	0.016869	-1.797069	0.0735
X3_ROA	0.009171	0.013703	0.669246	0.5039
X4_TATO	0.149451	0.077066	1.939271	0.0535

Source: Data Processed Using EViews (2026)

Based on the t-test results, the liquidity variable (X1) has a probability value of 0.0000, which is below 0.05. Therefore, liquidity has a significant positive effect on financial distress, with a coefficient of 1.139419. Meanwhile, leverage (X2) has a probability value of 0.0735, profitability (X3) has a probability value of 0.5039, and activity ratio (X4) has a probability value of 0.0535. Since all of these values are greater than 0.05, leverage, profitability, and activity ratio do not have a significant partial effect on financial distress.

Discussion

The Effect of Liquidity on Financial Distress

Based on the t-test results presented in Table 6, liquidity, as measured by the Current Ratio (CR), has a probability value of 0.0000, which is below 0.05. Therefore, H_a is accepted and H₀ is rejected. This indicates that liquidity has a significant effect on financial distress among food and beverage subsector companies listed on the Indonesia Stock Exchange during the 2020–2024 period. The positive regression coefficient of 1.139419 indicates a positive relationship, meaning that higher liquidity leads to a higher Z-Score, which reflects a healthier financial condition and a lower risk of financial distress.

This finding is consistent with signaling theory, in which high liquidity provides a positive signal to investors and creditors regarding a company's ability to meet its short-term obligations. The result is also consistent with the studies conducted by Putri and Hendrani (2024), Ramadini (2023), and Anisa et al. (2023), which found that liquidity has a significant effect on financial distress. However, this result differs from the findings of Tunga Dewi et al. (2022) and Pranita and Kristanti (2020), who found that liquidity did not have a significant effect on financial distress. These differences indicate inconsistencies in the findings of previous studies.

The Effect of Leverage on Financial Distress

Based on the t-test results presented in Table 6, leverage, as measured by the Debt-to-Equity Ratio (DER), has a probability value of 0.0735, which is greater than 0.05. Therefore, H_0 is accepted and H_a is rejected. This indicates that leverage does not have a significant effect on financial distress among food and beverage subsector companies listed on the Indonesia Stock Exchange during the 2020–2024 period.

From the perspective of signaling theory, this result suggests that a high proportion of debt is not always perceived as a negative signal, as it may reflect management's optimism regarding the company's ability to meet its debt obligations. In the food and beverage sector, creditors' willingness to provide financing may also indicate the company's credibility. Therefore, fluctuations in the DER do not directly trigger financial distress or lead to a decline in the Z-Score. This finding is consistent with the studies conducted by Ramadini (2023), Fildzah and Rachmawati (2025), and Wijaya and Melly (2024), which found that leverage had no significant effect on financial distress. However, this result differs from the findings of Putri and Hendrani (2024), Anisa et al. (2023), and Tungga Dewi et al. (2022), who reported that leverage had a significant effect on financial distress.

The Effect of Profitability on Financial Distress

Based on the t-test results presented in Table 6, profitability, as measured by Return on Assets (ROA), has a regression coefficient of 0.009171 and a significance value of 0.5039, which is greater than 0.05. Therefore, H_0 is accepted and H_a is rejected. This indicates that profitability does not have a significant effect on financial distress among food and beverage subsector companies listed on the Indonesia Stock Exchange during the 2020–2024 period.

From the perspective of signaling theory, profit should serve as a positive indicator of a company's performance. However, during the 2020–2024 period, this signal may not have been strong enough to influence the level of financial distress. Post-pandemic economic instability may have caused corporate profits to fluctuate and to be used primarily to sustain operational activities rather than to strengthen capital or retained earnings. As a result, profitability did not have a meaningful effect on improving the Z-Score. This finding is consistent with Anisa et al. (2023), who found that profitability did not significantly affect financial distress. However, it differs from the findings of Putri and Hendrani (2024), Ramadini (2023), and Fildzah and Rachmawati (2025), who reported that profitability had a significant effect on financial distress.

The Effect of Activity Ratio on Financial Distress

Based on the t-test results presented in Table 6, activity ratio, as measured by Total Asset Turnover (TATO), has a regression coefficient of 0.149451 and a significance value of 0.0535, which is greater than 0.05. Therefore, H_0 is accepted and H_a is rejected. This indicates that activity ratio does not have a significant effect on financial distress among food and beverage subsector companies listed on the Indonesia Stock Exchange during the 2020–2024 period.

This result suggests that the efficiency of asset utilization in generating sales has not yet become a determining factor in the level of financial distress. In the food and beverage industry, an increase in asset turnover does not always improve financial health because it may be accompanied by rising raw material and operating costs. As a result, the cash flow generated may be largely absorbed by short-term operational needs and may not significantly affect the Z-Score. This finding is consistent with Lumbantobing (2020) and Tungga Dewi

et al. (2022), who found that activity ratio did not significantly affect financial distress. However, it differs from the findings of Anisa et al. (2023) and Wijaya and Melly (2024), who reported that activity ratio had a significant effect on financial distress.

CONCLUSION

This study examined the effects of liquidity, leverage, profitability, and activity ratios on financial distress among food and beverage subsector companies listed on the Indonesia Stock Exchange during the 2020–2024 period. The sample was selected using purposive sampling and consisted of 68 companies observed over five years, resulting in 340 observations. The descriptive statistics indicated that liquidity data were relatively homogeneous, whereas leverage, profitability, activity, and financial distress showed greater variability. The F-test results demonstrated that liquidity, leverage, profitability, and activity ratios simultaneously had a significant effect on financial distress. However, the t-test results showed that only liquidity had a positive and significant effect on financial distress, as reflected by a higher Altman Z-Score, which indicates a healthier financial condition and lower financial distress risk. In contrast, leverage, profitability, and activity ratios did not have significant partial effects on financial distress during the study period. These findings suggest that liquidity was the primary factor influencing the financial condition of food and beverage companies during 2020–2024.

Future studies are recommended to expand the research model by incorporating additional variables that may affect financial distress, such as sales growth, operating cash flow, board independence, and macroeconomic factors including inflation. Further research may also extend the observation period or examine companies from other industrial sectors to obtain more comprehensive findings and enable broader comparisons.

REFERENCES

- Altman, E. I., & Hotchkiss, E. (2005). *Corporate Financial Distress and Bankruptcy*. John Wiley & Sons, Inc.
- Anisa, S., Shafitranata, S., Azizah MT, R., & Octavia, R. (2023). Pengaruh Rasio Keuangan terhadap Financial Distress Perusahaan Makanan dan Minuman di Indonesia Sebelum dan Saat Covid-19. *Nominal Barometer Riset Akuntansi Dan Manajemen*, 12(2), 166–176. <https://doi.org/10.21831/nominal.v12i2.58346>
- Antara. (2024). *Kemenperin: Industri makanan-minuman penopang ekonomi Indonesia - ANTARA News*. <https://www.antaranews.com/berita/3992028/kemenperin-industri-makanan-minuman-penopang-ekonomi-indonesia>
- CNBC. (2023). Kinerja Buruk, Valuasi Emiten Snack Taro (AISA) Mahal Banget! {CNBC Indonesia}. <https://www.cnbcindonesia.com/research/20230526131605-128-440895/kinerja-buruk-valuasi-emiten-snack-taro--aisa--mahal-banget?>
- CNBC Indonesia. (2024). *Bukan Sepi Peminat, Ini Alasan Jumlah IPO Saham 2024 di BEI Turun!* CNBC. <https://www.cnbcindonesia.com/market/20240711141116-19-553749/bukan-sepi-peminat-ini-alasan-jumlah-ipo-saham-2024-di-bei-turun>
- Deny, S. (2023). *Bangkit dari Pandemi, Ekspor Industri Makanan Minuman Indonesia Tembus USD 41,7 Miliar - Bisnis Liputan6.com*. Liputan6. <https://www.liputan6.com/bisnis/read/5560037/bangkit-dari-pandemi-ekspor-industri-makanan-minuman-indonesia-tembus-usd-417-miliar>

- Fachrudin, K. A., & Ihsan, M. F. (2021). The effect of financial distress probability, firm size and liquidity on stock return of energy users companies in Indonesia. *International Journal of Energy Economics and Policy*, 11(3), 296–300. <https://doi.org/10.32479/ijeep.10677>
- Fildzah, N. C. N., & Rachmawati, A. (2025). The Effect of Liquidity, Leverage, and Profitability on Financial Distress of Food and Beverage Companies. *Jurnal Ilmiah Akuntansi Dan Finansial Indonesia*, 8(2), 12–27. <https://doi.org/10.31629/jiafi.v8i2.6975>
- Handoyo. (2021). *Industri Makanan dan Minuman Kembali Bangkit Pasca Pandemi Covid-19*. <https://nasional.kontan.co.id/news/industri-makanan-dan-minuman-kembali-bangkit-pasca-pandemi-covid-19>
- Imam Ghozali, & Dwi Ratmono. (2017). *Analisis Multivariat Dan Ekonometrika: Teori, Konsep, dan Aplikasi dengan EvIEWS 10*.
- Investing. (2025). *Industri Mamin Terus Beri Kontribusi Signifikan Terhadap Perekonomian Nasional Oleh Warta Ekonomi*. Investing. <https://id.investing.com/news/economy-news/industri-mamin-terus-beri-kontribusi-signifikan-terhadap-perekonomian-nasional-2829209>
- Isbahi, M. B., Zuana, M. M. M. ., & Mariana, E. R. . (2022). The Technology Strategy in Website Communication Media in Improving Business Activities. *Majapahit Journal of Islamic Finance and Management*, 1(2), 126–138. <https://doi.org/10.31538/mjifm.v1i2.17>
- Jati, K. W., Agustina, L., Amal, M. I., Wahyuningrum, I. F. S., & Zulaikha. (2021). Exploring the internal factors influencing financial distress. *Accounting*, 7(4), 791–800. <https://doi.org/10.5267/j.ac.2021.2.005>
- Kalbuana, N., Taqi, M., Uzliawati, L., & Ramdhani, D. (2022). *The Effect of Profitability , Board Size , Woman on Boards , and Political Connection on Financial Distress Conditions The Effect of Profitability , Board Size , Woman on Boards , and Political Connection on Financial Distress Conditions*. 1975. <https://doi.org/10.1080/23311975.2022.2142997>
- Kasmir. (2022). *Analisis Laporan Keuangan*. Rajawali Pers.
- Komang Ridha Pranita, F. T. K. (2020). *Analisis Financial Distress Menggunakan Analisis Survival*. 9(2).
- Kompas. (n.d.). Apa Itu Pasar Modal: Pengertian, Fungsi, Jenis, Manfaat, dan Contohnya. 2024. Retrieved October 6, 2025, from <https://money.kompas.com/read/2024/09/18/133608126/apa-itu-pasar-modal-pengertian-fungsi-jenis-manfaat-dan-contohnya>
- Lumbantobing, R. (2020). *The Effect of Financial Ratios on the Possibility of Financial Distress in Selected Manufacturing Companies Which Listed in Indonesia Stock Exchange*. 132(AICMaR 2019), 60–63.
- Nabila, N. H. P. (2025). *Adu Laba Emiten Grup Salim Produsen Indomie INDF Vs ICBP Tahun Buku 2024 - Bursa Katadata.co.id*. Katadata. <https://katadata.co.id/finansial/bursa/67e387f4b967c/adu-laba-emiten-grup-salim-produsen-indomie-indf-vs-icbp-tahun-buku-2024>
- Nursal, E. Z., Kristanti, F. T., & Murti, G. T. (2023). *Effect of Financial Ratios , Macroeconomics , and Corporate Governance on Financial Distress*. 2(1), 85–96.

- Purwanto, S., Perkasa, D. H., & Abadi, F. (2023). Assessment of Banking Conditions on Financial Distress During the Period of COVID-19 in Indonesia. *WSEAS Transactions on Business and Economics*, 20, 467–474. <https://doi.org/10.37394/23207.2023.20.42>
- Putri, A. K., Kristanti, F. T., & Telkom, U. (2020). *Faktor-Faktor Yang Mempengaruhi Financial Distress Menggunakan Survival Analysis*. 6(1), 31–42.
- Putri Adelia Tungga Dewi, Deny Yudiantoro, & Amalia Nuril Hidayati. (2022). Pengaruh Rasio Keuangan Terhadap Kondisi Financial Distress Sub-Sektor Makanan Dan Minuman Yang Terdaftar Di Bei. *Jurnal Cakrawala Ilmiah*, 1(11), 3013–3026. <https://doi.org/10.53625/jcijurnalcakrawalailmiah.v1i11.2893>
- Putri, S. L., & Hendrani, A. (2024). The Effect of Profitability, Leverage, and Liquidity on Financial Distress. *COSTING: Journal of Economic, Business and Accounting*, 7(3), 5179–5195. www.idx.co.id
- Rahmiyati, N. (2022). Financial Performance Analysis of Food and Beverage Companies in The Listed Food and Beverage Sector on The Indonesia Stock Exchange. *International Journal of Social Science and Business*, 6(3), 350–356. <https://doi.org/10.23887/ijssb.v6i3.49990>
- Ramadini, P. A. (2023). *Determinan Financial Distress Pada Perusahaan Sektor Food And Beverage Di Bursa Efek Indonesia*. 9(2), 213–224. <https://doi.org/10.34204/jiafe.v9i2.8633>
- Rhamadanty, S. (2023). *Semester I 2024, Rugi Tri Banyan Tirta (ALTO) Bengkok Hingga 71,5%*. Kontan. <https://industri.kontan.co.id/news/semester-i-2024-rugi-tri-banyan-tirta-alto-bengkok-hingga-715>
- Saleh, T. (2020). *Masih Tekor! Rugi Bersih Tiga Pilar Q3 Susut Jadi Rp 60 M*. <https://www.cnbcindonesia.com/market/20201027155012-17-197465/masih-tekor-rugi-bersih-tiga-pilar-q3-susut-jadi-rp-60-m>
- Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87(3), 355–374. <https://doi.org/10.2307/1882010>
- Wahyuni, T. P. N., Risal, Febriati, & Renny Wulandari. (2025). Determinan Financial Distress Pada Perusahaan Bumn Di Bursa Efek Indonesia. *JRAK (Jurnal Riset Akuntansi Dan Bisnis)*, 11(1), 49–57. <https://doi.org/10.38204/jrak.v11i1.2238>
- Widianto, S. (2021). *Pandemi Covid-19, Industri Makanan dan Minuman Jadi Sektor yang Terus Dipacu*. <https://www.pikiran-rakyat.com/ekonomi/amp/pr-01809782/pandemi-covid-19-industri-makanan-dan-minuman-jadi-sektor-yang-terus-dipacu?page=all>
- Wijaya, E., & Melly, P. S. (2024). Financial Distress: Analisis Rasio Keuangan Perusahaan Sub Sektor Transportasi Periode 2020Q1-2022Q4. *JIMFE (Jurnal Ilmiah Manajemen Fakultas Ekonomi)*, 10(1), 89–102. <https://doi.org/10.34203/jimfe.v10i1.9857>