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Can Bigger Be Safer? Firm Size and Financial Ratios in Distress Prediction

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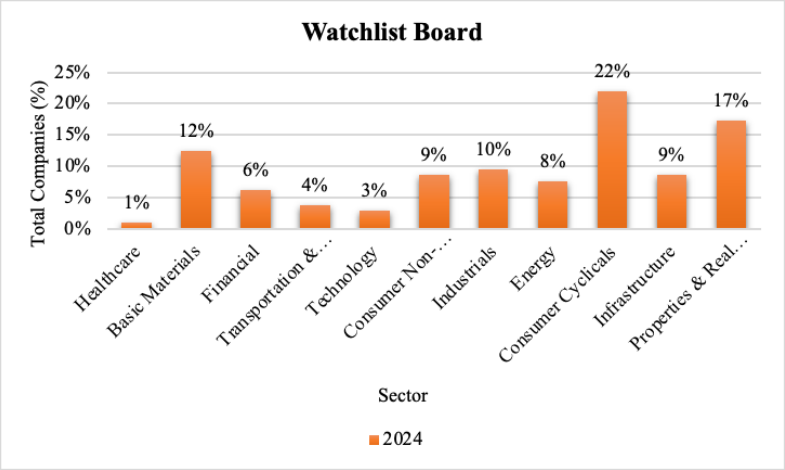
ABSTRACT
The declining performance of Indonesia's consumer cyclicals sector, highlights the sector's increasing exposure to financial distress amid global economic slowdown and inflationary pressures. Previous studies have largely focused on manufacturing firms and leverage variables, leaving a research gap concerning liquidity, profitability, and firm size as predictors of financial distress in post-pandemic market conditions. This study aims to examine the effect of liquidity, profitability, and firm size on financial distress among consumer cyclicals companies listed on the Indonesia Stock Exchange between 2021 and 2023. A quantitative approach was employed using purposive sampling, resulting in 117 firm-year observations. Financial distress was measured by the modified Altman Z″-Score, while multiple linear regression was used to test the hypotheses after confirming classical assumptions. The results reveal that liquidity and firm size have a significant negative effect on financial distress, whereas profitability exerts a positive influence, suggesting that higher profits may not always translate into financial stability if accompanied by inefficient capital or debt management. Collectively, these variables explain 64.5% of the variation in financial distress, confirming their combined predictive relevance. The study contributes to the refinement of signaling and agency theory by demonstrating that liquidity and firm size act as stabilizing signals of financial health, whereas profitability may misrepresent true resilience. Practically, the findings guide investors, managers, and regulators in developing risk-mitigation and monitoring strategies to strengthen financial sustainability in volatile sectors.

1. Introduction

Financial statements serve as fundamental tools that encapsulate the fiscal posture and operational efficiency of a company over a given period. They provide critical insights that support managerial decision-making and facilitate external evaluation (Shirabe & Nakano, 2022), thus allowing for the assessment of the company's health or potential financial distress (Zennaro et al., 2024). Furthermore, financial distress emerges when a company falters in overseeing its fiscal health, which can lead to significant financial losses (Rahmi et al., 2024). Specifically, one category of financial distress occurs when a company faces detrimental income for two consecutive years (Figlioli & Lima, 2022). If such conditions persist and management fails to take corrective action,

the risk of bankruptcy will increase, causing negative consequences for management, creditors, investors, and the government (Ding et al., 2023).

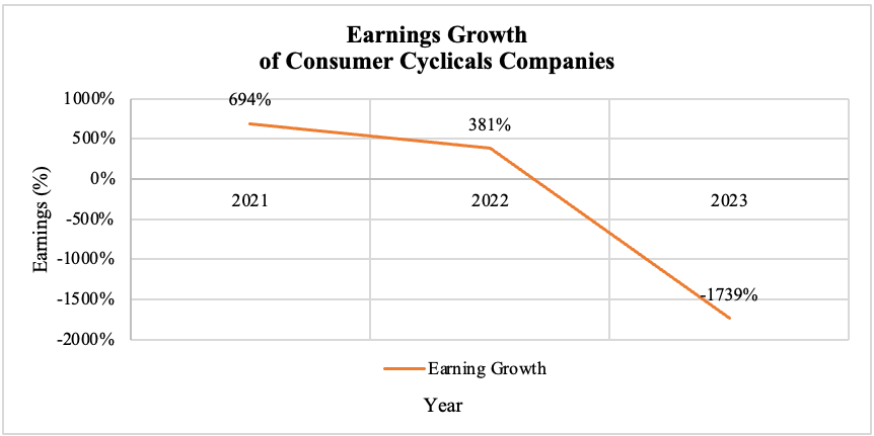
In line with this context, and in pursuit of enhanced investor protection, the Indonesia Stock Exchange (IDX) implemented a special monitoring board starting June 12, 2023, as a continuation of the Special Monitoring List for Equity Securities that was introduced on July 19, 2021. This regulatory mechanism governs stock trading based on 11 specific criteria, including poor financial conditions, lack of income, negative equity, audit opinions without statements, and bankruptcy or suspension of debt payment obligations (PKPU). Consequently, stocks listed on this board are traded through periodic call auctions and serve as key indicators of investment risk, particularly for novice investors (Indonesia Stock Exchange, 2024).



Source: Data Processed by Researcher (2025)

Figure 1. Watchlist Board

Figure 1 shows that there are 209 companies listed on the special monitoring board. Among these, the consumer cyclicals sector is the most dominant, representing 22% or 46 companies. This high number reflects the sector's poor performance, especially in terms of revenue, profit, and equity. Predictability increases with lower liquidity, smaller market capitalization, and wider long-term spreads (Park & Newaz, 2023).



Source: Data Processed by Researcher (2025)

Figure 2. Earning Growth Consumer Cyclicals Companies on 2021-2023

Figure 2 illustrates the profit growth percentage of consumer cyclicals companies from 2021 to 2023. Profit growth in 2021 reached 694%, then decreased to 381% in 2022 and dropped to -1739% in 2023. A company's profit growth can be assessed through its net profit. If a company's profit growth declines for two consecutive years, this indicates potential financial distress (C. Chen

et al., 2020).

This phenomenon is aligned with the International Monetary Fund (2024) report, which states that the global economy has slowed since the post-pandemic recovery, driven by persistent inflation and sluggish productivity. Simultaneously, Badan Pusat Statistik (2024) reports a downward trend in Indonesia's economic growth in Q1 and Q2 of 2024. These macroeconomic conditions indicate a recessionary climate, with the consumer cyclicals sector being the most affected due to its nature as a secondary goods sector, where demand is highly sensitive to consumer purchasing power. Consequently, the sector's declining earnings growth, as reflected in Figure 2, illustrates an increased vulnerability to financial distress.

From a theoretical perspective, Signaling Theory posits that financial statements act as signals to external parties regarding a company's health. Declining profits in the consumer cyclicals sector may generate negative perceptions, reducing investor and creditor confidence. Meanwhile, Agency Theory emphasizes the potential conflict between management and shareholders, which may result in suboptimal decisions and less transparent financial reporting factors that can intensify financial distress risk. Financial distress can be assessed using the modified Altman Z"-Score model from 1995 (EM Z"-Score), which divides the company's condition into three zones: distress zone, grey area, and safe zone (Kebede et al., 2024). Financial ratios, such as liquidity and profitability, are used to analyze whether these ratios influence the onset of financial turmoil, as appraised through the Altman Z"-Score model. The current ratio serves as an indicator of liquidity, with a higher value reflecting the entity's proficiency in satisfying its near-term financial commitments, thereby mitigating the risk of encountering financial adversity. As outlined by Fu et al. (2024); Quah et al.(2021) and Chen et al. (2024) who state that liquidity impacts financial distress. Profitability is measured by return on assets, which reflects management's effectiveness in generating profit from the company's assets. An increase in profitability correlates with a diminished probability of experiencing financial distress. This aligns with the analytical endeavors previously undertaken by Bonanno et al. (2023); Spitsin et al. (2020); and Heath and Sertsios (2022) which show that profitability significantly influences financial distress. The size of a firm holds a pivotal influence in forecasting the likelihood of financial distress. Larger companies, with more assets, are considered better able to handle financial challenges and reduce bankruptcy risks. This is corroborated by research from Fonseca et al. (2022); Leng and Sun (2024); and Mansour et al. (2024) which suggests that firm size impacts financial distress.

Previous research examined the impact of liquidity, profitability, and leverage on financial distress. Nevertheless, the study found the leverage variable to be insignificant. This research addresses the gap by replacing the leverage variable with firm size, utilizing the modified Altman Z"-Score model (1995) to measure financial distress, and focusing on the consumer cyclicals sector, which faces specific challenges as highlighted in the background. Unlike previous studies that focused on manufacturing companies, this study updates the period to 2021–2023 to align with the most recent IDX classification regulations introduced in 2021. Additionally, this study adopts multiple linear regression analysis, as opposed to the logistic regression method used in prior research, to augment the explanatory capacity of the model. However, despite the relevance of liquidity, profitability, and firm size, it remains unclear how these factors collectively influence financial distress specifically within the consumer cyclicals sector of the IDX. This unresolved issue formulates the central research problem of this study. This research primarily aims to examine how liquidity, profitability, and corporate scale influence the occurrence of financial distress among companies operating in the consumer cyclicals sector listed on the Indonesia Stock Exchange during the 2021–2023 timeframe. By offering updated evidence from the post-pandemic period, this study seeks not only to enrich academic discourse but also to provide a practical framework for investors, corporate managers, and regulators in designing strategies to mitigate financial distress risk in a highly volatile sector.

Signalling Theory

Signaling theory, initially conceptualized by Spence (1973), posits that corporate entities transmit information to external stakeholders through financial disclosures as a mechanism to facilitate informed decision-making. Financial indicators, notably liquidity and profitability ratios, function as proxies that communicate a firm's fiscal stability and operational efficacy (Migliaccio & De Palma, 2024). Within this framework, managerial intent typically involves emitting affirmative signals to cultivate market credibility. Enterprises exhibiting robust financial outcomes are inclined to convey optimistic signals, thereby fostering investor assurance and diminishing the probability of financial vulnerability. In contrast, subpar financial outcomes often generate unfavorable signals, which may elicit detrimental market responses and elevate the exposure to financial adversity (Leng & Sun, 2024).

Agency Theory

Jensen and Meckling (1976) introduced agency theory to explain the formal relationship between business owners, referred to as principals, and the managers they appoint to act on their behalf. In practice, this relationship is prone to conflict—especially when managerial interests deviate from those of the owners. Such misalignment is often worsened by information asymmetry, since managers typically hold more detailed knowledge about the firm's internal state. The size of a company can influence how well it is monitored; larger firms usually implement stronger systems of corporate governance, which may help reduce agency-related issues. This theory provides a useful lens for understanding and addressing these tensions, particularly when tighter controls are needed to ensure alignment between both parties (Barker et al., 2024). Strategic errors made by managers can impose serious financial consequences on the firm's owners, and in extreme cases, may trigger financial distress (Giolito & Golsorkhi, 2025).

Financial Statement

According to Ikatan Akuntansi Indonesia (2022)), financial statements are defined as an organized and systematic representation of an entity's financial condition and operational outcomes. Their primary function is to deliver relevant information that supports stakeholders in making informed economic decisions. These reports are compiled by company management to communicate the firm's financial progress and condition to interested external parties. Typically, financial statements are comprised of five fundamental sections: the statement of financial position, the income statement, the statement of changes in equity, the cash flow statement, and accompanying notes that offer further clarification and context.

Financial Distress

Altman (1968) characterizes financial distress as a firm's incapacity to generate returns that are proportional to the risks associated with invested capital, ultimately leading to an inability to fulfill financial obligations in a timely manner. This state is also marked by persistent challenges in managing cash flows, escalating debt levels, and a long-term decline in operational efficiency (Diah Wulandari & Kushindrajati Aprilia, 2023). Financial distress can be classified into various forms, including economic failure, business failure, technical insolvency, bankruptcy-related insolvency, and formal legal bankruptcy (Prusko & Ehmke, 2023). One of the most extensively applied models for estimating bankruptcy risk is the Altman Z-Score, which has been refined over time to accommodate diverse business contexts. Historically, Altman (Altman, 1968) original Z-Score was designed for U.S. manufacturing firms, then modified several times—including the Z'-Score for private firms and the Z"-Score tailored for emerging markets. The continued refinement of the model reflects the growing importance of adapting financial distress prediction tools to different industries and economic contexts (Altman et al., 2017). This research adopts the Z"-Score model tailored for emerging markets, which is applicable to both manufacturing and non-manufacturing firms. The model utilizes a benchmark Z"-Score value of 3.25, referred to as the Emerging Market (EM Z-Score) (Altman et al., 2017). The version employed in this study incorporates four financial ratios as

predictive components:

$$Z" = 3{,}25 + 6{,}56X_1 + 3{,}26X_2 + 6{,}72X_3 + 1{,}05X_4$$

X_1 : Working Capital/Total Assets
X_2 : Retained Earnings/Total Assets
X_3 : Earnings Before Interest and Taxes/Total Assets
X_4 : Book Value of Equity/Total Liabilities
Z" : Overall Indeks

Table 1. **Discrimination Zone of the Modified Altman Z"-Score (1995)**

Z"-Score	Discrimination Zone
Z" < 3,75	Distress Zone
3,75 < Z" < 5,85	Grey Area
Z" > 5,85	Safe Zone

Source: Altman et al (2017)

Liquidity

A company's liquidity indicates firm's capacity to fulfill short-term financial commitments as they come due. Liquidity refers to the firm's ability to pay short-term financial obligations as they become due, and a higher liquidity level improves the financial health of insurance businesses while reducing the likelihood of financial distress (Kebede et al., 2024). This capacity is generally ensured when the value of current assets surpasses that of short-term liabilities. Firms with higher liquidity are less likely to delay their financial reporting, as liquid assets such as cash and marketable securities can be quickly valued and disclosed, facilitating timely submission of reports (Huyen, 2024). Compared to other liquidity metrics, the current ratio offers a broader perspective, as it encompasses the entirety of current assets (Corporate Finance Institute, 2020). Liquidity is typically appraised by the current ratio, reflecting efficiency, reporting timeliness, and reduced financial distress (Abdullah et al., 2023; Huyen, 2024). The ratio evaluates a firm's ability to settle obligations expected to mature within one year, emphasizing how effectively the firm can convert its current assets into cash to discharge its liabilities. Empirical evidence shows that stronger liquidity enables firms to maintain operational resilience, mitigate earnings manipulation, and sustain performance even under financial distress or liquidity crises across emerging and developed markets (Essa & Giouvris, 2023; Fung, 2023; Luu Thu, 2023). Current assets typically include items anticipated to be liquidated or utilized within a year or a standard operating cycle. On the other hand, current liabilities comprise obligations that are due within a 12-month period, such as trade payables, tax obligations, short-term borrowings, and other operating expenditures, and the balance between these two components—captured by liquidity ratios like the current ratio—serves as a vital indicator of a firm's capacity to avert financial distress, as demonstrated in emerging market studies showing that sufficient liquidity enables companies to meet short-term obligations, sustain profitability, and reduce bankruptcy risk (Abdullah et al., 2023; Mahesh et al., 2025)

Profitability

Profitability represents the degree to which a firm optimizes its assets in producing earnings and delivering value to its shareholders, reflecting its capacity to enhance financial performance through efficient cost management, technological innovation, and strategic resource utilization that transform operational efficiency into sustainable returns (Al-Shattarat et al., 2025; Robin et al., 2025). A prominent metric for assessing profitability is the return on assets. It serves as a robust indicator of how firms translate their operational efficiency and adaptive strategies into tangible financial outcomes under macroeconomic volatility (Ibrahimov et al., 2025). Meanwhile, Return on assets captures how effectively institutions transform asset utilization into profitability even amid external shocks such as global policy uncertainty (Savai et al., 2025; Zuhroh & Rofik, 2024). Return

on assets encapsulates how effectively companies transform assets into earnings through efficient capital use, liquidity management, and leverage control, thereby reflecting managerial capability to sustain profitability amid shifting fiscal policies and market conditions (Rifai et al., 2024; Worku et al., 2024). In addition, the return on assets is shaped by two principal factors: (1) the efficiency of asset turnover, which pertains to how quickly assets engaged in the firm's operations are converted into revenue, and (2) the profit margin, which reflects the proportion of profit relative to net sales and indicates the company's capacity to generate profit from its sales.

Firm Size

Firm size reflects the overall scale of a company's operations and resources, indicating its capacity to access external financing, diversify activities, and absorb economic shocks, which collectively shape its financial resilience and performance stability (Hidayat & Yuniati, 2024; Sambo et al., 2023). Firm size significantly influences financial distress, as larger firms often face greater structural complexity, higher fixed costs, and increased debt burdens that collectively heighten their vulnerability to financial instability (Diep To, 2024). However, empirical evidence from Asia's dominant telecommunications companies indicates that firm size, though positively related to financial distress, exerts no significant effect—suggesting that scale alone does not determine financial vulnerability when strategic management and capital efficiency mitigate systemic risks (Hidayat & Yuniati, 2024; Kristanti & Akhmad, 2023). Empirical evidence indicates that organizational resilience during financial distress is shaped not by scale alone, but by the firm's capacity to sustain liquidity, manage financial structures efficiently, and implement strategic mechanisms that enhance stability, minimize insolvency risks, and safeguard operations against macroeconomic fluctuations (Fachrudin & Ihsan, 2021; Rijanto, 2022; Yang et al., 2023). Firm size denotes the magnitude of an enterprise, typically delineated through multiple dimensions such as gross revenue, aggregate asset holdings, or shareholders' equity. Larger firms, characterized by extensive asset holdings and broader operational capacity, generally demonstrate stronger financial resilience through greater access to capital markets, enhanced bargaining power, and an improved capacity to absorb reorganization costs during periods of financial distress (Abdullah et al., 2023; Jati et al., 2021).

Hypothesis Development

Firms with robust liquidity levels are typically less vulnerable to the risk of insolvency. This capacity reflects their ability to efficiently deploy current assets to meet short-term liabilities as they come due, thereby reducing their exposure to financial distress. On the contrary, a lack of liquidity signals potential challenges in meeting immediate obligations, increasing the firm's susceptibility to financial instability (Armanious & Zhao, 2024). Drawing upon signaling theory, a firm's capability to settle short-term debts promptly or secure necessary funding is viewed as a positive signal to external stakeholders, especially investors and creditors. Such signals suggest financial fortitude, bolstering confidence in the firm's operational longevity, and mitigating the reputational and operational risks that accompany financial distress. These assertions are supported by empirical research from who uncover a notable association between a firm's liquidity position and its susceptibility to financial distress.

Corporations that report elevated returns on assets (ROA) typically exhibit exceptional profitability, which enhances their financial flexibility and diminishes the likelihood of encountering distress situations. High profitability signals efficient asset management, strong earnings generation, and a resilient competitive position (Kweh et al., 2024). Consistent with signaling theory, firms actively utilize financial statements to convey strategic messages of strength and dependability to the market. These signals act as indicators of the firm's quality, attracting positive market sentiment and emphasizing the firm's strategic competence in capitalizing on future opportunities. As a result, profitability is reinforced, providing a protective buffer against financial distress. This

theoretical and empirical relationship is echoed in the works of Isayas (2021), all of whom highlight the decisive role of profitability in mitigating financial distress.

Moreover, firm size emerges as another critical determinant in the discourse on financial stability. Larger firms, endowed with more extensive asset bases, are typically better equipped to weather financial turbulence and stave off bankruptcy threats compared to their smaller counterparts. Their enhanced access to external financing and institutional credibility facilitates the procurement of credit on more favorable terms (Bvirindi & Inalegwu, 2024). Additionally, their ability to diversify business operations enables them to expand revenue streams and optimize production costs, which collectively bolster their capacity to fulfill financial obligations and reduce distress exposure. This assertion finds empirical validation in the research of Isayas (Isayas, 2021), who conclude that firm size holds significant predictive power in explaining variations in financial distress.

To gain a deeper understanding of the associations between the independent variables and the dependent variable, this study utilizes a conceptual framework. Below is the conceptual framework that underpins this research:

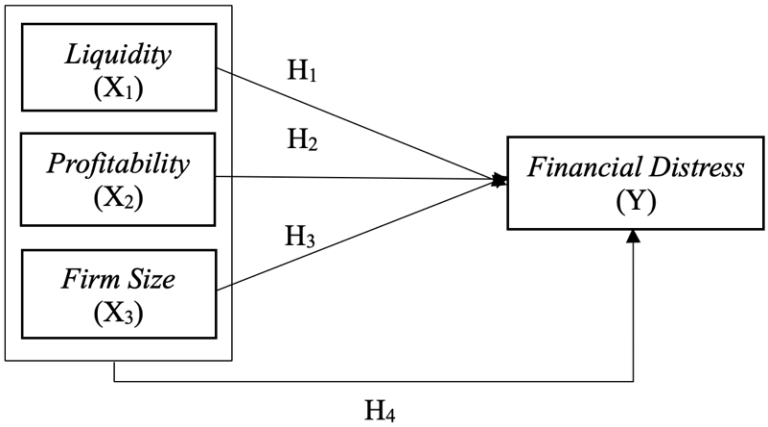


Figure 3. Research Framework
Source: Data Processed by Researcher (2025)

Hypothesis Statement
H_1 : Liquidity affects financial distress
H_2 : Profitability affects financial distress
H_3 : Firm size affects financial distress
H_4 : Liquidity, profitability, and firm size affect financial distress

2. Method

Type and Object Research

The research adopts a quantitative framework, concentrating on firms within the consumer cyclicals sector listed on IDX over the period from 2021 to 2023.

Variable Operationalization

Table 2 presents the operational definitions of the study variables. Liquidity (X1) is measured using the current ratio, reflecting the firm's ability to meet short-term obligations. Profitability (X2), assessed through return on assets, indicates managerial efficiency in generating earnings from total assets. Firm size (X3) is measured by the natural logarithm of total assets, representing the firm's scale and resource capacity. Financial distress (Y) is calculated using the modified Altman Z''-Score, which integrates multiple financial ratios to classify firms into distress, grey, or safe zones. These standardized measures ensure consistency, comparability, and robustness in empirical analysis.

The operational definitions for each variable in this research are outlined in the subsequent table:

Table 2. Variable Operationalization

Variable	Measurement	Scale	Source
Liquidity (X1)	$CR = \frac{Current\ Asset}{Current\ Liabilities}$	Ratio	(Brigham & Houston, 2022)
Profitability (X2)	$ROA = \frac{Net\ Income}{Total\ Asset}$	Ratio	(Brigham & Houston, 2022)
Firm Size (X3)	$Ln = (Total\ Asset)$	Ratio (Transformed)	(Isayas, 2021)
Financial Distress (Y)	$Z" = 3{,}25 + 6{,}56X1 + 3{,}26X2 + 6{,}72\ X3 + 1{,}05X4$	Interval	(Altman et al., 2017)

Source: Data Processed by Researcher (2025)

Population and Sample

The population for this study comprises 159 companies within the sector. A purposive sampling technique was applied, utilizing the ensuing criteria:

Table 3. Selection of Research Sample

Description	Total
Population of consumer cyclicals sector companies listed on IDX	159
1. Companies that were consistently listed on the IDX during the 2021–2023 period	-40
2. Companies that published audited annual financial reports ending on December 31	-17
3. Financial statements denominated in Rupiah	-11
4. Companies that incurred losses for two consecutive years during the observation period	-57
Sample	**39**
Total Sample (39 × 3)	**117**

Source: Data Processed by Researcher (2025)

Based on these criteria, 39 companies were selected as samples, resulting in 117 observations (39 companies × 3 years).

Data Collection Methods

This study employs secondary data derived from financial statement published by entities officially registered on the Indonesia Stock Exchange website (https://www.idx.co.id). The data were gathered through the documentation method.

Data Analysis Methods

The analytical procedure is executed through the application of descriptive statistical analysis techniques to offer a comprehensive summary of the data, as well as classical assumption tests, which include tests for normality, multicollinearity, autocorrelation, and heteroscedasticity. Once all assumptions are satisfied, multiple linear regression is employed to examine the impact of each independent variable on financial distress. Hypothesis testing is performed using the F-test to assess the simultaneous effects, the t-test to evaluate partial effects, and the R square to evaluate the extent to which the independent variables elucidate the variability in the dependent variable (Sugiyono, 2020). The analytical model employed adopted in the present study is multiple linear regression, which is articulated as follow:

$$Y = \alpha - \beta 1X1 + \beta 2X2 + \beta 3X3 + e$$

Y : Financial distress
α : Constant
β1 β2 β3 β4 : Regression coefficient for each independent variable
X1 : Liquidity
X2 : Profitability
X3 : Firm size
e : Error of estimation

3. Results

Descriptive Statistic Analysis

Table 4. Descriptive Statistic Analysis Result

Descriptive Statistics						
	N Statistic	**Minimum Statistic**	**Maximum Statistic**	**Mean**		**Std. Deviation Statistic**
				Statistic	**Std. Error**	
CR (X1)	117	0.002	91.246	3.782	1.064	11.508
ROA (X2)	117	-9.498	0.12	-0.278	0.111	1.199
Firm Size (X3)	117	22.879	30.142	27.065	0.142	1.539
Financial Distress (Y)	117	-2928.45	404.956	-36.081	28.845	312.005
Valid N (listwise)	**117**					

Source: Output SPSS 26 (2025)

Table 4 delineates the outcomes from the descriptive statistical analysis. The liquidity variable (CR/X_1) exhibits a minimum value of 0.002, a maximum of 91.246, a mean of 3.782, and a standard deviation of 11.508, based on 117 observations. The profitability variable (ROA/X_2) reveals a minimum of -9.498, a maximum of 0.120, a mean of -0.278, and a standard deviation of 1.199, with 117 observations. The firm size variable (X_3) records a minimum of 22.879, a maximum of 30.142, a mean of 27.065, and a standard deviation of 1.539, derived from 117 observations. Finally, the financial distress variable (Y) displays a minimum of -2928.448, a maximum of 404.956, a mean of -36.081, and a standard deviation of 312.005, based on 117 observations.

Normality Test

Table 5. Normality Test Result

One-Sample Kolmogorov–Smirnov Test		
		Unstandardized Residual
N		117
Normal Parameters[a,b]	Mean	0.0000000
	Std. Deviation	0.00005259
Most Extreme Differences	Absolute	0.055
	Positive	0.045
	Negative	-0.055
Test Statistic		0.055
Asymp. Sig. (2-tailed)[c]		**0.200[d]**

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Source: Output SPSS 26 (2025)

Table 5 demonstrates that the Kolmogorov-Smirnov test for the liquidity (CR/X_1), profitability (ROA/X_2), firm size (X_3), and financial distress (Y) variables yielded an Asymp. Sig. (2-tailed) value of 0.200, which exceeds the 0.05 threshold. This implies that the residuals adhere to a normal distribution, thus validating that the regression model meets the normality assumption.

Multiple Linear Regression Analysis

Table 6. Multiple Linear Regression Analysis Result

Coefficients[a]			
		Unstandardized Coefficients	
Model		B	Std.Error
1	(Constant)	0.548	.000
	CR (X1)	-4.39E-03	.000
	ROA (X2)	2.231E-02	.000
	Firm Size (X3)	-4.520E-02	.000

a. Dependent Variable: Financial Distress (Y)
Source: Output SPSS 26 (2025)

$$FD = 0{,}548 - 4{,}393(CR) + 2{,}231(ROA) - 4{,}520(FS) + e$$

The regression equation shows a constant value of 0.548, indicating that if all independent variables (liquidity/CR, profitability/ROA, and firm size) are zero, the level of financial distress will be 0.548. A negative coefficient for liquidity/CR implies that a 1-unit increase in liquidity reduces financial distress by 4.393, assuming other variables remain constant. This suggests that higher liquidity ratios lower the likelihood of financial distress. A positive coefficient for profitability/ROA indicates that a 1-unit increase in profitability raises financial distress by 2.231, which may occur if high profitability is accompanied by poor cost or debt management. Meanwhile, the negative coefficient for firm size suggests that larger firms tend to experience lower financial distress, reflecting greater financial stability compared to smaller firms.

F Test (Simultaneous Test)

Table 7. F Test Result

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	3	.000	85.495	**.000**[b]
	Residual	.000	113	.000		
	Total	.000	116			

a. Dependent Variable: Financial Distress (Y)
b. Predictors: (Constant), Firm Size (X3), CR (X1), ROA (X2)
Source: Output SPSS 26 (2025)

Table 10 presents an F-value of 85.495, which serves as the basis for evaluating the joint effect of the independent variables on financial distress. At a 5% significance level, with degrees of freedom df1 = (k−1) = 2 and df2 = (n−k) = 114, the critical F-table value is 3.08. Since the computed F-value (85.495) is substantially greater than the critical threshold and the significance value (Sig.) is 0.000, which is well below 0.05, the null hypothesis is rejected. This confirms that liquidity (CR), profitability (ROA), and firm size (Ln Total Assets) collectively have a statistically significant influence on financial distress. The result implies that variations in these financial indicators jointly explain a significant portion of the changes in firms' financial health within the consumer cyclicals sector. The high F-statistic reflects the robustness of the regression model, indicating that the selected predictors are not random but meaningfully contribute to explaining the dependent variable. Therefore, it can be concluded that the model possesses strong explanatory power in

capturing the combined effects of liquidity, profitability, and firm size on financial distress, validating its suitability for subsequent interpretation and policy implications.

t Test (Partial Test)

Table 8. t Test Result

Model		Unstandardized Coefficients		Standardized Coefficients		
		(B)	Std. Error	(Beta)	t	Sig.
1	(Constant)	0.548	.000		5589.629	.000
	CR (X1)	-4.393E-03	.000	-.532	-10.188	**.000**
	ROA (X2)	2.231E-02	.000	.281	4.826	**.000**
	Firm Size (X3)	-4.520E-02	.000	-.731	-12.578	**.000**

a. Dependent Variable: Financial Distress (Y)

Source: Output SPSS 26 (2025)

The findings of the t-test indicate that liquidity/CR (X_1) registers a t-value of -10.188, surpassing the t-table value of -1.98118, accompanied by a significance value of 0.000 (< 0.05). This infers that liquidity/CR (X_1) exerts a pronounced adverse effect on financial distress (Y). The profitability/ROA (X_2) records a t-value of 4.826, exceeding the t-table threshold of 1.98118, with a significance value of 0.000 (< 0.05), signifying a noteworthy positive influence on financial distress (Y). Firm size (X_3) attains a t-value of -12.578, surpassing the t-table value of -1.98118, with a significance level of 0.000 (< 0.05), denoting a significant detrimental impact on financial distress (Y).

Coefficient Determination (R^2)

Table 9. **Coeffiecient Determination (R^2) Result**

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.803[a]	.645	.635	.00005270

a. Predictors: (Constant), Firm Size (X3), CR (X1), ROA (X2)

b. Dependent Variable: Financial Distress (Y)

Source: Output SPSS 26 (2025)

The R^2 value for the association between Liquidity/CR (X_1), Profitability/ROA (X_2), and Firm Size (X_3) with Financial Distress (Y) is 0.645. This implies that 64.5% of the variation in Financial Distress (Y) is accounted for by the independent variables, while the remaining 35.5% is ascribed to variables beyond the purview of this study.

4. Discussion

The Effect of Liquidity on Financial Distress

Drawing upon the empirical evidence, liquidity demonstrates a negative relationship with financial distress among consumer cyclical firms listed on the IDX for the 2021–2023 period, thereby corroborating the first hypothesis (H_1). This negative correlation suggests that the greater a company's liquidity the reduced propensity of the company encountering financial distress. These findings align with signalling theory, which indicates that a company's financial information sends signals to stakeholders. High liquidity conveys an optimistic indication that the company maintains financial stability and can meet its obligations on time (Gupta & Kashiramka, 2020). This signal enhances the confidence of investors and creditors, broadens the company's access to funding, and strengthens its financial resilience. Conversely, low liquidity may create a negative perception regarding potential default, limit access to external funding, and increase the risk of undergoing

financial distress (Fu et al., 2024; Qin et al., 2023). These outcomes are in concordance with the investigations carried out by Isayas (Isayas, 2021), which indicate that liquidity has a negative impact on financial distress.

The Effect of Profitability on Financial Distress

As inferred from the analytical results of this study, profitability has been substantiated as having a positive effect on financial distress in consumer cyclicals companies listed on the IDX during the period 2021-2023, thus supporting the second hypothesis (H_2). This positive association indicates that higher profitability in a company is associated with an increased probability of encountering financial distress. These results align with signaling theory, which implies that firms utilize financial data to convey signals to investors about their condition and business prospects. High profitability is generally considered a positive signal reflecting good financial performance; however, it can have different interpretations in the market (Cao et al., 2022; Schneemeier, 2023). Companies that focus on increasing profitability through expansive means, such as purchasing assets on credit, may incur significant debt, which ultimately elevates the risk of financial distress. The high profitability should reduce the susceptibility to financial distress, but if the company fails to manage its capital and debt effectively, the signals sent to the market can turn negative (Hu & Zhao, 2023). These results echo the studies of Isayas (Isayas, 2021); Kweh et al. (Kweh et al., 2024) which state that profitability affects financial distress.

The Effect of Firm Size on Financial Distress

In light of the study's results, firm size has been proven to have a negative effect on financial distress in consumer cyclicals companies listed on the IDX during the period 2021-2023, thus supporting the third hypothesis (H_3). This negative relationship indicates that the larger the firm size, the lesser the probability of the company encountering financial distress. Companies with larger assets tend to have higher resilience against economic pressures, making them demonstrate a reduced vulnerability to financial distress. Firms of greater scale exhibit broader access to external funding sources. Financial institutions are generally more confident in companies with large assets due to their solid track record, making it easier for them to obtain credit and enabling them to meet their financial obligations. These findings align with agency theory, where large companies tend to have better oversight. This occurs because agents in large companies, who are more closely monitored, are more cautious in managing assets, making these companies more capable of facing financial crises. The results exhibit concordance with previous scholarly inquiries undertaken by Isayas (Isayas, 2021); Tan et al. (2021), Bolibok (2024), which state that firm size induces a negative influence on financial distress.

The Effect of Liquidity, Profitability, and Firm Size on Financial Distress

Based on the results of the study, liquidity, profitability, and firm size have been shown to have a significant effect on financial distress in consumer cyclicals companies listed on the IDX during the period 2021-2023, thus supporting the fourth hypothesis (H4). This suggests that the size of liquidity, activity, profitability, and firm size reflects the level of financial distress. Signalling theory explains that a high liquidity level indicates healthy financial conditions and increases the confidence of investors and creditors. Conversely, low liquidity serves as a warning signal that may trigger financial instability due to difficulties in maintaining cash flow (Yen & Chou, 2020). Signalling theory also emphasizes that stable and increasing profits create a positive market perception, while low profitability indicates weaknesses in the business model and increases concerns about the inability to cover operational costs. Agency theory explains that large companies have better governance structures and tighter supervision, reducing the likelihood of managerial errors in financial management. The ability of large companies to diversify their business also strengthens income stability, consequently lowering the firm's susceptibility to financial distress. These findings are consistent with the studies Kweh et al. (Kweh et al., 2024);

Figlioli & Lima (Figlioli & Lima, 2022), which state that liquidity, profitability, and firm size have a simultaneous effect on financial distress.

5. Conclusion

The findings derived from the analysis of consumer cyclical sector companies on the IDX for the 2021–2023 period reveal that liquidity, assessed through the Current Ratio, exerts a significant negative impact on financial distress, thereby supporting and aligning with Hypothesis 1 (H1), suggesting that higher liquidity curtails the chances of encountering financial distress. Similarly, firm size, measured by the Ln total assets, also exhibits a significant negative effect on financial distress, supporting Hypothesis 3 (H3), which posits that larger firms tend to be less predisposed to experience financial distress due to better access to capital and diversified operations. In contrast, profitability, measured by Return on Assets, shows a significant positive effect on financial distress, confirming Hypothesis 2 (H2), which indicates that higher profitability is associated with a magnified threat of financial distress occurrence, potentially due to pressure to maintain profitability or heavy investments in growth. Furthermore, these three financial indicators liquidity, firm size, and profitability collectively influence the extent of financial distress encountered by the companies, supporting Hypothesis 4 (H4), which suggests that these financial factors together offer a comprehensive explanation for financial distress. These outcomes underscore the theoretical salience of signaling and agency constructs in contextualizing financial distress. Enterprises are advised to refine liquidity stewardship and risk protocols, investors to scrutinize fiscal viability pre-investment, and regulators to advance transparency in corporate disclosures. This study's scope limited to the consumer cyclicals sector, specific financial variables, and the 2021–2023 period may reduce the generalizability of its findings. To elucidate the underpinnings of financial adversity with greater precision, ensuing inquiries may contemplate an expanded industrial purview alongside the integration of macro-level indicators and less conventional predictive apparatuses.

6. References

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