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The Role of Profitability as a Mediator in the Effect of Liquidity and Leverage on Financial Distress Prediction Using the Zmijewski Method

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Abstract

The increasing number of companies at risk of delisting from the Indonesia Stock Exchange emphasizes the need for early detection of financial distress. This study aims to examine the effect of liquidity and leverage on financial distress, with profitability as a mediating variable. The research population includes all Consumer Cyclicals companies listed on the Indonesia Stock Exchange during the 2021–2024 period. The sample consists of companies listed on the Watchlist board and reporting financial statements in Rupiah. Liquidity is measured by Current Ratio (CR), leverage by Debt to Asset Ratio (DAR), profitability by Return on Assets (ROA), and financial distress by the Zmijewski method. The results show that liquidity does not affect profitability, while leverage has a significant negative effect. Liquidity and leverage both significantly affect financial distress. Profitability partially mediates the effect of leverage on financial distress, but cannot mediate the effect of liquidity on financial distress.

Keywords :Financial Distress; Liquidity; Leverage; Profitability

Abstract

Meningkatnya jumlah perusahaan yang berisiko delisting dari Bursa Efek Indonesia menegaskan pentingnya deteksi dini terhadap financial distress. Penelitian ini bertujuan menguji pengaruh likuiditas dan leverage terhadap financial distress dengan profitabilitas sebagai variabel mediasi. Populasi penelitian mencakup seluruh perusahaan sektor Consumer Cyclicals yang terdaftar di BEI pada periode 2021–2024. Sampel dipilih berdasarkan perusahaan yang masuk papan "Pemantauan Khusus" dan menyajikan laporan keuangan dalam Rupiah. Likuiditas diukur dengan Current Ratio (CR), leverage dengan Debt to Asset Ratio (DAR), profitabilitas dengan Return on Assets (ROA), dan financial distress menggunakan metode Zmijewski. Hasil penelitian menunjukkan bahwa likuiditas tidak berpengaruh terhadap profitabilitas, sedangkan leverage berpengaruh negatif signifikan terhadap profitabilitas. Likuiditas dan leverage berpengaruh signifikan terhadap financial distress. Profitabilitas memediasi sebagian pengaruh leverage terhadap financial distress, namun tidak dapat memediasi pengaruh likuiditas terhadap financial distress.

Keywords : *Financial Distress* ; Likuiditas; *Leverage* ; Profitabilitas

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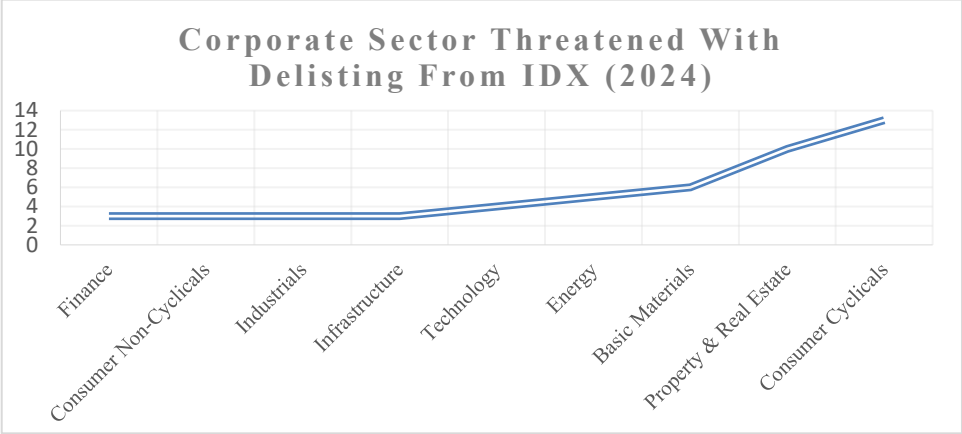
1. INTRODUCTION

The Indonesia Stock Exchange (IDX) has officially released information regarding the potential delisting of 50 listed entities on June 28, 2024. This issue has drawn significant attention from internal management and shareholders, as the potential impact could substantially affect business continuity. The following is the list of sectors of entities that are at risk of being delisted from the IDX listing board:



Source : Indonesia Stock Exchange, (2024)

Figure 1 Sectors of Companies at Risk of Delisting from the IDX in 2024

Based on the figure above, the Consumer Cyclicals sector dominates the list of entities threatened with delisting from the Indonesia Stock Exchange (IDX), as the performance of companies in this sector is highly influenced by economic cycles. Delisting, particularly forced delisting, often occurs due to financial distress, a condition in which companies experience financial difficulties and are unable to meet their obligations. Kristanti (2019:2) stated that financial distress can eliminate a company from the market if it is not properly managed.

Financial distress can disrupt a company's operations, reduce its credibility in the event of default, and potentially lead to bankruptcy (Negoro & Wakan, 2022). However, financial distress can be detected early through the analysis of financial ratios in financial statements (Wijaya & Suhendah, 2023). Financial ratios such as liquidity, solvency (or leverage), and profitability are considered capable of describing financial performance and predicting the symptoms of financial distress that companies may face (Azis et al., 2024).

Liquidity is one of the key financial ratios for predicting financial difficulties. According to Suyuti & Tasiman (2024:142), liquidity measures a company's ability to meet its short-term liabilities based on its available assets. Subramanyam (2017:141) also revealed that companies facing liquidity problems reflect an inability to settle short-term obligations, which may eventually lead to bankruptcy.

Solvency (or leverage) measures how a company utilizes debt to finance its operational activities (Hayati & Sholichah, 2022). A high leverage ratio indicates that most of the company's funding sources come from debt. If this proportion of debt usage is not well managed, the company may experience financial difficulties (Dewi et al., 2022).

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Profitability is also a key indicator for predicting potential financial distress, as it reflects the company's ability to generate profit (Suyuti & Tasiman, 2024:38). The Return on Assets (ROA) ratio is often used to assess how effectively a company utilizes its assets to generate income (Diyani & Rahman, 2022). A low ROA indicates inefficiency in asset management and potential financial problems, while a high ROA shows that the company can optimize its assets to earn profits, thereby lowering the risk of financial distress.

These financial ratios play a crucial role in maintaining the company's financial stability. According to Hakim (2024:239), the early symptoms of financial distress are typically characterized by low liquidity and profitability. This finding is also supported by Listyarini (2020), who found that companies are more likely to experience financial distress if they have problems with leverage and liquidity. Furthermore, the level of profit obtained by a company affects its overall financial condition (Fitriani et al., 2023). This, in turn, reduces liquidity and influences equity sources and solvency (Wijaya & Suhendah, 2023).

This study contributes to expanding insights regarding the mediating role of profitability in linking liquidity, leverage, and financial distress, particularly in the Consumer Cyclicals industry, which is highly vulnerable to economic cycle fluctuations. The findings of this study may serve as a practical reference for company management to develop more adaptive financial management strategies and as a foundation for future researchers to explore more comprehensive financial distress prediction models.

2. THEORETICAL FRAMEWORK AND HYPOTHESIS

Signalling Theory, introduced by Spence (1973), serves to convey information about a company's condition to external parties (Rangga et al., 2025). The transmission of this information acts as a signal for stakeholders to assess the company's financial condition, including the risk of financial distress (Septiani et al., 2021). This theory is useful in identifying potential financial distress so that both management and stakeholders can make strategic decisions. If potential financial distress can be detected early, management can take preventive measures to avoid more severe conditions. Therefore, financial distress can serve as a signal or indicator of possible bankruptcy risk.

Disclosure Theory explains that companies have a motivation to disclose financial information transparently to reduce asymmetry information between management and stakeholders (Chen et al., 2025). Adequate disclosure serves as a means of communication to present the company's true financial condition and performance, including potential financial difficulties. Thus, transparency in financial information that reflected in financial ratios could represents the company's accountability to external parties.

Legitimacy Theory emphasizes that the sustainability of an organization depends on its ability to maintain social legitimacy from society and stakeholders. Companies often use information disclosure as a tool for legitimization, demonstrating compliance with social responsibility and good corporate governance (Meutia et al., 2022). Therefore, legitimacy theory provides a crucial

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foundation for understanding how companies with good financial performance can maintain public trust and acceptance through transparency and adequate disclosure.

Financial Distress

According to Hakim (2024:239), financial distress is a condition in which an entity experiences financial pressure prior to bankruptcy. However, financial distress can also serve as an early warning if the initial symptoms are wisely addressed to prevent more serious problems. Therefore, financial ratio analysis is essential to detect financial distress at an early stage, enabling companies to take preventive actions and avoid potential losses by utilizing this information (Subramanyam, 2017:184; Kristanti, 2019:2). The measurement of financial distress in this study uses the Zmijewski method, as it provides higher predictive accuracy compared to other models (Listyarini, 2020; Ramadhani et al., 2023). The Zmijewski model is calculated as follows:

$$\mathbf{Z = 1{,}2\ Z_1 + 1{,}4\ Z_2 + 3{,}3\ Z_3 + 0{,}6\ Z_4 + 1{,}0\ Z_5}$$

Notes:
X_1 = *Net Profit/Total Asset*
X_2 = *Total Liabilities/Total Asset*
X_3 = *Current Asset/Current Liabilities*

Liquidity

Liquidity indicates the entity's capacity to meet its current debts or short-term obligations (Kasmir, 2019:129). According to Suyuti & Tasiman (2024:142), liquidity ratios reveal whether a company's financial resources are sufficient to settle short-term liabilities that are due soon. The liquidity proxy used in this study is the Current Ratio (CR), calculated as follows:

$$\text{Current Ratio (CR)} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Leverage

The leverage ratio, or solvency, assesses the extent to which a company's assets or equity are financed by debt (Kasmir, 2019:153). This ratio shows the proportion of debt the company must bear compared to its total assets (Nurdiniah, 2023). The leverage proxy used in this study is the Debt to Asset Ratio (DAR), calculated as follows:

$$\text{Debt to Asset Ratio (DAR)} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

Profitability

Kasmir (2019:198) defines profitability as a ratio used to measure a company's capacity to generate profits. Similarly, Hery (2017:312) describes profitability as an indicator used to evaluate how effectively a company generates income from its normal business operations. The profitability proxy used in this study is the Return on Assets (ROA), calculated as follows:

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$$\text{Return On Assets (ROA)} = \frac{\text{Net Profit}}{\text{Total Assets}}$$

Research Hypothesis

1) Liquidity to Profitability

According to Pratama & Sufina (2023), liquidity and profitability are related. Rangga et al. (2025) stated that an excessively high liquidity ratio indicates an entity is unable to manage its assets optimally to generate maximum profit. Therefore, companies need to maintain a balance between liquidity and asset productivity to achieve an ideal level of profitability. Previous studies by Dauda et al. (2021), Julietha & Natsir (2021), and Vidyasari et al. (2021) found that liquidity has an influence on profitability. Based on this explanation, the hypothesis is proposed:
H1: Liquidity affects Profitability

2) Leverage to profitability

Leverage, measured by the Debt to Asset Ratio (DAR), reflects the extent to which a company's assets are financed by debt, or the proportion of total debt to total assets (Ali et al., 2022). High debt levels may reduce a company's profits since part of its income must be used to meet obligations and interest payments (Pratama & Sufina, 2023). Previous studies by Dauda et al. (2021), Julietha & Natsir (2021), and Pratama & Sufina (2023) found that leverage influences profitability. Based on this explanation, the hypothesis is proposed:
H2: Leverage affects profitability

3) Liquidity to Financial Distress

Liquidity reflects the how far a company is able to meet its current liabilities (Hakim, 2024:19). According to Wijaya & Suhendah (2023), a company is considered liquid if it can settle its current debts before the due date. Conversely, if a company fails to pay its obligations, it is deemed illiquid and at risk of financial distress. Previous studies by Hayati & Sholichah (2022), Purwaningsih & Safitri (2022), and Habil & Laily (2023) found that liquidity affects financial distress. Based on this explanation, the hypothesis is proposed:
H3: Liquidity affects Financial Distress

4) Leverage to Financial Distress

Leverage measures a company maintains its operational activities through debt (Hayati & Sholichah, 2022). A high proportion of debt can increase financial risk, especially if the debt is not managed effectively. This is because a large portion of funding derived from debt and high interest obligations can reduce financial stability (Dewi et al., 2022). Previous studies by Rismala et al. (2022), Fitriani et al. (2023), Habil & Laily (2023), and Setiadi et al. (2023) confirmed that leverage affects financial distress. Based on this explanation, the hypothesis is proposed:
H4: Leverage affects Financial Distress

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5) Profitability to *Financial Distress*

Rahma (2020) revealed that a high level of profitability reflects a company's ability to optimize its assets to generate profit. The higher a company's profitability, the lower the likelihood of experiencing financial difficulties. Previous studies by Rahma (2020), Negoro & Wakan (2022), Purwaningsih & Safitri (2022), and Dewi et al. (2022) also found that profitability influences financial distress. Based on this explanation, the hypothesis is proposed:

H5: Profitability affects Financial Distress

6) Profitability as a Mediator between Liquidity and Financial Distress

Companies with strong financial performance and good liquidity conditions are able to minimize the potential occurrence of financial distress (Septiani et al., 2021). Firms with higher profits tend to maintain better liquidity because their earnings can be used to increase liquid assets and meet obligations smoothly, thus reducing the risk of financial difficulties (Mulyatiningsih & Atiningsih, 2021). Based on this explanation, the following hypothesis is proposed:

H6: Profitability mediates the effect of liquidity on Financial Distress

7) Profitability as a Mediator between Leverage and Financial Distress

Companies with high leverage but also high profitability tend to have a lower risk of financial distress compared to those with high leverage and low profitability (Setiadi et al., 2023). A high level of profitability can enhance a company's independence in financing its operational and investment activities, thereby reducing reliance on external funding sources such as debt (Rangga et al., 2025). In other words, profitability serves as a protective factor that mitigates the potential for financial difficulties, particularly when leverage ratios are high. Based on this explanation, the following hypothesis is proposed:

H7: Profitability mediates the effect of Leverage on Financial Distress

3. RESEARCH METHODS

This study employs a quantitative approach utilizing panel data and secondary information in the form of financial statements obtained from the Indonesia Stock Exchange (IDX) through www.idx.co.id. The population includes all Consumer Cyclical companies listed on the IDX. The observation period is 2021–2024. The sample was selected using a purposive sampling technique, considering companies whose financial reports are listed under the "Special Monitoring" board to obtain a contrasting overview of firms with a higher risk of financial distress because this category exhibits weaker financial conditions compared to other listed firms. The sampling criteria and results are summarized as follows:

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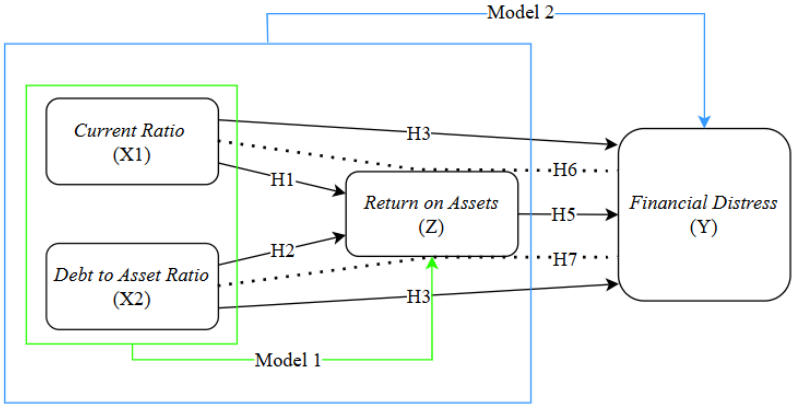
Table 1. Determination Research Sample Criteria

Sample Criteria	Amount
Consumer Cyclicals sector companies listed on the IDX during 2021-2024.	166
Consumer Cyclicals sector companies with other listing board	(121)
Consumer Cyclicals sector companies under "Special Monitoring" that do not publish financial statements in Rupiah during 2021–2024	(25)
Consumer Cyclicals sector companies that can be used as samples	20
Research years	4
Total sample as observations	**80**

Source: Processed data, (2025)

This study implement panel data regression and testing through EViews 12 with framework conceptual as following :



Source: Processed data, (2025)

Figure 2Conceptual Framework

Regression Analysis Model 1

$$ROA = \alpha_1 + \beta_1 CR + \beta_2 DAR + \varepsilon_1$$

Regression Analysis Model 2

$$FD = \alpha 2 + \beta 3 CR + \beta 4 DAR + \beta 5 ROA + \varepsilon 2$$

Notes:

FD = Financial Distress
CR = Current Ratio
DAR = Debt to Asset Ratio
ROA = Return On Assets
α_2 = Regression constant
$\beta 1 - \beta_5$ = Regression coefficients of variable effects
ε_2 = Error or residual term of the regression model

1) Significance Test (t-test)
   Through Eviews 12, t-test is applied to answer H1 - H5. A relationship between variables is considered significant if the probability value is less than 0.05 (p <

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0.05). Conversely, if the probability value is greater than 0.05 (p > 0.05), the relationship is considered insignificant (Ghozali , 2021:152) .

2) Sobel test
Sobel test is conducted to examine the mediating role of profitability with calculator Sobel through https://quantpsy.org/sobel/sobel.htm. This test applied to answer H6 and H7. The decision criterion is that if the t-statistic (t-count) > t-table, it can be concluded that a mediating effect exists (Ghozali , 2021:277).

4. DATA ANALYSIS AND DISCUSSION

Descriptive analysis is used to explain the mean, maximum, minimum, and standard deviation of all examined variables.

Table 2. Descriptive Statistical Test

Statistics	CR	DAR	ROA	FD
Mean	6.057625	7.731000	-0.436250	41.75050
Median	0.715000	0.560000	-0.030000	-0.460000
Maximum	113.9100	121.4500	4.780000	732.6500
Minimum	0.010000	0.010000	-9.930000	-4.030000
Std. Dev.	18.51419	24.04709	1.881100	144.3885
Observations	80	80	80	80

Source: EViews Output 12, (2025)

The regression model in EViews 12 was determined through the Chow Test, Hausman Test, and Lagrange Multiplier Test. Afterward, the best estimation model can be selected, either the Common Effects Model (CEM), the Fixed Effects Model (FEM), or the Random Effects Model (REM).

Table 3. Regression Model Selection

Test Type	Model 1		Model 1	
	Value	Model	Value	Model
Chow Test	0.00	FEM	0.23	CEM
Hausman test	0.32	REM	-	-
Lagrange Multiplier	0.00	REM	0.55	CEM
Selected Model	*Random Effect Model*		*Common Effect Model*	

Source: EViews Output 12, (2025)

After selecting a regression model, a classical assumption test could conducted However, the classical assumption test is only performed if the selected regression models are CEM or FEM. If the selected regression model is REM, then the classical assumption test is not required (Nafis et al., 2024; Setiawan et al., 2023). Because the model 1 was selected REM, and model II was selected CEM, the classical assumption test is only performed on model II.

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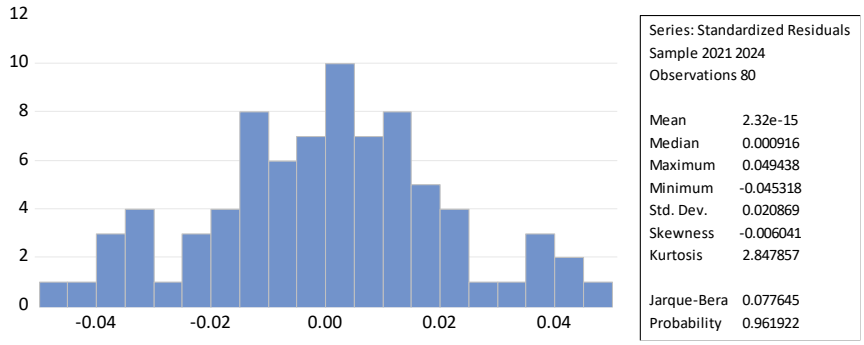

Source: EViews Output 12, (2025)

Figure 3Normality Test of Model II

Based on the normality test through Jarque-Bera, the probability value is 0.96 > 0.05 indicating that the observed data are normally distributed.

Table 4. Multicollinearity Test of Model II

Variable	*Coefficient Variance*	*Uncentered* VIF	*Centered* VIF
C	7.07E-06	1.248532	NA
CR	1.69E-08	1.123077	1.013235
DAR	3.79E-08	4.220410	3.820528
ROA	6.15E-06	4.001931	3.795228

Source: EViews Output 12, (2025)

Based on the multicollinearity test results, the CR, DAR and ROA variables have VIF value < 10 meaning there is no multicollinearity problem in the data.

Table 5. Heteroscedasticity Test of Model II

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	0.017618	0.001625	10.84042	0.0000
CR	-0.000112	7.96E-05	-1.406846	0.1635
DAR	-0.000198	0.000119	-1.660609	0.1009
ROA	-0.001573	0.001516	-1.037421	0.3028

Source : EViews Output 12, (2025)

Based on the Glejser test results for Model II, the Prob. values for CR, DAR, and ROA > 0.05, indicating no heteroscedasticity problem.

Table 6. Results of Regression Test Model I with *Random Effect Model*

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	0.116927	0.187918	0.622224	0.5356
CR	-0.001081	0.006606	-0.163677	0.8704
DAR	-0.070706	0.006807	-10.38717	0.0000

Effects Specification

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			Elementary School	Rho
Random cross-section			0.693902	0.4776
Idiosyncratic random			0.725675	0.5224
Weighted Statistics				
R-squared	0.583369	*Mean dependent var*		-0.202145
Adjusted R-squared	0.572547	*SD dependent var*		1.111839
SE of regression	0.726919	*Sum squared residual*		40.68764
F-statistic	53.90790	*Durbin-Watson stat*		2.661273
Prob(F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.734311	*Mean dependent var*		-0.436250
Sum squared residual	74.27189	*Durbin-Watson stat*		1.457899

Source: EViews Output 12, (2025)

Based on the results of panel data regression for model I using REM, the regression equation value is: ROA = 0.117 – 0.001 CR – 0.071 DAR + e1

Table 7. Regression Test Results Equation II with *Common Effect Model*

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	-4.303216	0.002658	-1617.919	0.0000
CR	0.003933	0.000130	30.21894	0.0000
DAR	5.699997	0.000195	29293.81	0.0000
ROA	-4.500209	0.002479	-1815.206	0.0000
R-squared	1,000,000	*Mean dependent var*		41.75050
Adjusted R-squared	1,000,000	*SD dependent var*		144.3885
SE of regression	0.021277	*Akaike info criterion*		-4.813660
Sum squared residual	0.034406	*Schwarz criterion*		-4.694559
Log likelihood	196.5464	*Hannah-Quin criter .*		-4.765909
F-statistic	1.21E+09	*Durbin-Watson stat*		2.234581
Prob(F-statistic)	0.000000			

Source: EViews Output 12, (2025)

Based on the results of panel data regression for model II using CEM, the regression equation value is: FD = -4.30 + 0.004 CR + 5.7 DAR – 4.5 ROA + e2

In Table 6, the Adjusted R^2 of Model I is 0.57, indicating that CR and DAR explain 57% of ROA, while the remaining 43% is influenced by other variables not included in this study. Meanwhile, Table 7 shows that Model II has an Adjusted R^2 value of 1, indicating that the independent variables (CR, DAR, and ROA) 100% completely explain the dependent variable, financial distress, using the Zmijewski method. Since Zmijewski method structurally incorporates CR, DAR, and ROA in its calculation, the Adjusted R^2 of 1 is reasonable. So according to the Zmijewski method, this results reflect that liquidity (CR), leverage (DAR), and profitability (ROA) are fully determine the prediction of financial distress among Consumer Cyclicals companies listed under the "Special Monitoring Board" of the IDX.

According to Ghozali (2021:148), the F-test indicates whether one or all independent variables have an effect on the dependent variable.

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Table 8. Simultaneous Significance Test (F Test) Model I and Model II

	Comparison		Comparison	
Model I	*F-statistic*	53.90790	*Prob. (F-statistic)*	0.000000
	F-table	3.12	Alpha level (α)	0.05
	53.91 > 3.11		0.00 < 0.05	
Model II	*F-statistic*	1.21E+09	*Prob. (F-statistic)*	0.000000
	F-table	2.72	Alpha level (α)	0.05
	1.21E+09 > 2.72		0.00 < 0.05	

Source: Eviews Output 12, (2025)

Based on the F-test output for Model I and Model II, since the F-statistic > F-table and Prob.(F-statistic) < α = 0.05, it can be concluded that one or more independent variables significantly influence the dependent variable

Table 9. Individual Parameter Significance Test (t-Test)

Hypothesis	Variables	Coefficient	Prob. (α=5%)	Results	Decision
H1	CR → ROA	-0.001081	0.8704 > 0.05	No effect	Rejected
H2	DAR → ROA	-0.070706	0.0000 < 0.05	Influential Negative	Accepted
H3	CR → FD	0.003933	0.0000 < 0.05	Influential Positive	Accepted
H4	DAR → FD	5.699997	0.0000 < 0.05	Influential Positive	Accepted
H5	ROA → FD	-4.500209	0.0000 < 0.05	Influential Negative	Accepted

Source: EViews Output 12, (2025)

The t-statistic results are as follows:

1. Liquidity (CR) has a regression coefficient of –0.001 with a probability value of 0.87 > 0.05. Thus, CR has no significant effect on profitability (ROA), and H1 is rejected.
2. Leverage (DAR) has a regression coefficient of –0.071 with a probability value of 0.00 < 0.05. Thus, DAR has a negative and significant effect on profitability (ROA), and H2 is accepted.
3. Liquidity (CR) has a regression coefficient of 0.004 with a probability value of 0.00 < 0.05. Therefore, CR has a positive and significant effect on financial distress, and H3 is accepted.
4. Leverage (DAR) has a regression coefficient of 5.7 with a probability value of 0.00 < 0.05. Therefore, DAR has a positive and significant effect on financial distress, and H4 is accepted.
5. Profitability (ROA) has a regression coefficient of –4.5 with a probability value of 0.00 < 0.05. Thus, ROA has a negative and significant effect on financial distress, and H5 is accepted.

Sobel test aims to analyze the mediating role of the intervening variable.

Table 10. Sobel Test Results

Hypothesis	Mediation Path	Sobel 's t- count	t- table (α=5%)	Results	Decision
H6	CR → ROA → FD	0.1636	1.99	ROA is not capable to mediate the influence of CR on Financial Distress	Rejected

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H7	DAR → ROA → FD	10,3871	1.99	ROA is capable mediate the influence of DAR on Financial Distress	Accepted

Source: Processed data through https://quantpsy.org/sobel/sobel.htm, (2025)

1. Based on the Sobel calculator result, the t-count is 0.164 < t-table 1.99. Hence, profitability (ROA) cannot mediate the relationship between liquidity (CR) and financial distress, so H6 is rejected.
2. Based on the Sobel calculator result, the t-count is 10.387 > t-table 1.99. Hence, profitability (ROA) can mediate the relationship between leverage (DAR) and financial distress, so H7 is accepted.

Liquidity has no effect on profitability

Liquidity reflects a company's capacity to meet its current liabilities (Hakim, 2024:19). The findings indicate that even if a company can meet short-term obligations, it does not necessarily enhance profitability. Suyuti & Tasiman (2024:143) argue that excessively high liquidity ratios indicate inefficient asset utilization, suggesting that assets are not managed optimally to generate profit.

This result is consistent with Wulandari (2021), Ali et al. (2022), and Pratama & Sufina (2023), who found no significant relationship between liquidity and profitability. High liquidity may lead to idle funds that could otherwise be invested. However, this result contradicts Dauda et al. (2021), Vidyasari et al. (2021), and Julietha & Natsir (2021), who reported a significant relationship.

Leverage has a significant negative effect on profitability

Leverage measures the proportion of assets or equity financed by debt (Kasmir, 2019:153). The negative coefficient indicates an inverse relationship, higher debt levels lead to lower profitability. Excessive debt could reduce profit since a portion of revenue must cover interest and repayment obligations. If most assets are financed by debt, profitability may decline unless the borrowed funds generate returns exceeding their cost (Meilia & Dwiarti, 2022).

This finding aligns with previous studies by Julietha & Natsir (2021), Fitriana et al. (2022), and Pratama & Sufina (2023), which found a negative effect of leverage on profitability. However, this study's findings contradict those of Ali et al. (2022), who rejected the effect of leverage on profitability.

Liquidity has a significant positive effect on financial distress

Although liquidity shows a company's ability to pay short-term liabilities, excessively high liquidity may increase financial distress risk. According to Septiani et al. (2021), if current assets are concentrated in receivables or inventory rather than cash, the company may struggle to meet obligations due to limited liquidity. Similarly, large receivable balances take time to collect, which may worsen cash flow and increase financial distress risk (Wijaya & Suhendah, 2023).

Suyuti and Tasiman (2024:143) stated that excessive liquidity ratio signify that management asset was inefficient. This result supports findings by Septiani et al. (2021), Setiadi et al. (2023), Wijaya & Suhendah (2023), and Rangga et al.

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(2025), who found a positive effect of liquidity on financial distress. However, it contradicts Azis et al. (2024) and Fitriani et al. (2023), who found no relationship.

Leverage has a significant positive effect on financial distress

Leverage, as proxied by DAR, measures the extent to which a company's assets are financed by debt (Hakim, 2024:22). A lower DAR indicates a lower financial risk, assuming that the entity's total assets are sufficient to cover all of its obligations. Conversely, a higher DAR reflects greater financial risk because excessive debt increases the company's difficulty to pay all the obligations. Default events often mark the beginning of financial instability (Fitriani et al., 2023).

Large proportion of debt raises financial risk, as also stated by Hery (2017:299). Consistent with previous studies, leverage is positively associated with the likelihood of financial distress (Dewi et al., 2022; Fitriana et al., 2022; Habil & Laily, 2023). However, this finding contradicts prior research by Azis et al. (2024), Hayati & Sholichah (2022), and Purwaningsih & Safitri (2022), which found no significant correlation between leverage and financial distress.

Profitability has a significant negative effect on Financial Distress

The company's ability to generate profit can be measured through profitability ratios (Hakim, 2024:25). The negative coefficient indicates an inverse relationship between profitability and financial distress—firms with lower profitability are more prone to financial distress, and vice versa. This result is consistent with previous findings that show a negative and significant effect of profitability on financial distress (Fitriani et al., 2023; Negoro & Wakan, 2022).

A high profitability ratio reflects a healthy financial condition and the ability to maintain business continuity while minimizing the potential for financial difficulties. Companies that efficiently generate profit from their operations tend to have stronger financial resilience; thus, maintaining profitability is essential as a preventive measure against potential financial distress.

Profitability does not mediate the effect of liquidity on financial distress

In this study, profitability (ROA) failed to act as a mediator in the relationship between liquidity (CR) and financial distress, indicating that the effect of CR on financial distress is direct. High liquidity does not always represent overall financial health, especially when not supported by adequate profitability. Inefficient management of current assets could be a factor, where firms are capable of meeting short-term obligations but fail to utilize assets effectively to generate income (Pratama & Sufina, 2023).

This finding aligns with Rismala et al. (2022), who also found that profitability does not mediate the effect of liquidity on financial distress. It also supports the first hypothesis (H1), indicating that liquidity (CR) does not significantly affect profitability (ROA). The lack of a significant relationship between CR and ROA explains why profitability cannot mediate the link between liquidity and financial distress. Therefore, in this context, liquidity directly influences financial distress risk without the mediation of profitability.

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Profitability mediates the effect of leverage on financial distress

Profitability (ROA) mediates the relationship between leverage (DAR) and financial distress indicated that leverage not only directly influences financial distress risk but also indirectly affects it through profitability. A high DAR reflects greater dependence on debt, which may lower operational efficiency due to higher interest expenses and repayment obligations, thereby reducing net profit. This finding supports the seventh hypothesis (H7), reinforcing the second hypothesis (H2) that leverage negatively affects profitability, and the fifth hypothesis (H5), which states that profitability negatively affects financial distress.

This result contrasts with Rismala et al. (2022), who found that profitability does not mediate the leverage and financial distress relationship. The acceptance of H7 implies that high leverage can reduce profitability and increases financial distress risk. Thus, profitability serves as an essential bridge in the relationship between leverage and financial distress, emphasizing that companies with high debt levels must manage profitability efficiently to mitigate future financial risks.

Relationship between empirical results and theoretical framework

Based on the research results, it was found that liquidity had no effect on profitability, while leverage had a negative effect on profitability. Furthermore, liquidity and leverage significantly influenced financial distress, with profitability proven to mediate the effect of leverage on financial distress, but unable to mediate the effect of liquidity on financial distress. These empirical findings can be associated with three theoretical foundations: Signaling Theory, Disclosure Theory, and Legitimacy Theory .

First, the relationship between leverage and profitability supports Signalling Theory, which posits that financial ratios serve as signals to external parties in assessing firm condition (Rangga et al., 2025; Septiani et al., 2021). High leverage signals higher financial risk, reflecting the firm's dependence on debt and the potential reduction in profitability due to interest burdens. Meanwhile, the insignificant relationship between liquidity and profitability suggests that liquidity ratios may not provide a strong enough signal to represent profit performance, implying that not all financial ratios serve as effective signals of firm performance.

Second, the significant relationship between liquidity and leverage with financial distress can be explained by Disclosure Theory, which emphasizes that financial information disclosure reflects corporate transparency (Chen et al., 2025). Low liquidity or high leverage serves as an early warning of financial risk, highlighting the importance of transparent financial reporting to reduce information asymmetry and help stakeholders assess a company's financial health.

Third, the mediating role of profitability in the leverage–financial distress relationship supports Legitimacy Theory, which suggests that sound financial performance helps maintain social legitimacy and public trust (Meutia et al., 2022). Stable profitability reflects management's ability to manage financial risks and meet stakeholder expectations. However, when profitability fails to mediate the liquidity–financial distress relationship, it implies that short-term solvency alone cannot sustain legitimacy without efficient operations and effective debt management.

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Overall, the empirical results show that Signalling Theory explains how leverage and profitability act as indicators of financial risk, Disclosure Theory captures how financial ratios convey transparency regarding potential distress, and Legitimacy Theory illustrates how profitability helps firms maintain public trust amid financial pressure. Together, these theories provide a comprehensive framework for understanding factors influencing financial distress among Consumer Cyclicals companies.

5. CONCLUSION AND SUGGESTIONS

This study examines the effects of liquidity and leverage on financial distress prediction, with profitability as a mediating variable. Based on the overall testing results, the conclusions are as follows:

1) Liquidity (CR) has no significant effect on profitability (ROA). This indicates that the ability to meet short-term obligations does not necessarily align with the efficiency of asset management in generating profits.
2) Leverage (DAR) has a negative and significant effect on profitability (ROA). The higher the proportion of debt to total assets, the lower the profitability due to increased interest expenses and repayment obligations.
3) Liquidity (CR) has a positive and significant effect on financial distress, suggesting that firms with high liquidity are not always free from financial pressure risks, particularly when most current assets consist of less liquid items such as receivables or inventories.
4) Leverage (DAR) has a positive and significant effect on financial distress. This demonstrates that a company's dependence on debt-based financing increases the likelihood of experiencing financial difficulties.
5) Profitability (ROA) has a negative and significant effect on financial distress. Companies with higher profitability are more resilient to financial distress risk. This finding supports Signalling Theory, in which good profitability serves as a positive signal to investors regarding the firm's financial health.
6) Profitability (ROA) does not mediate the relationship between liquidity (CR) and financial distress. This result shows that the company's ability to meet short-term obligations does not automatically reduce financial distress risk through profit generation if not accompanied by efficient asset management.
7) Profitability (ROA) successfully mediates the relationship between leverage (DAR) and financial distress. The negative effect of leverage on profitability leads to a higher risk of financial distress, indicating that profitability plays a crucial role as an intermediary mechanism that mitigates the adverse impact of leverage on financial distress.

The findings of this study offer several implications for corporate management, investors, and capital market regulators:

1) For companies, the results emphasize the importance of maintaining a balance between liquidity, leverage, and profitability by optimizing current asset management and controlling debt proportions to maximize profits.

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Implementing more efficient financial management strategies can reduce financial distress risk and strengthen operational resilience.

2) For regulators (OJK and IDX), this study suggests to strengthen early warning systems for potential financial distress, particularly among firms with high leverage and low profitability. Stricter regulations regarding financial disclosure and risk transparency are essential to maintain market stability.
3) For investors and creditors, the results provide valuable insights that profitability ratios serve as a key indicator in assessing a company's ability to sustain operations amid financial pressure.

Limitations of this study that may serve as considerations for future research:

1) The sample is limited to Consumer Cyclicals sector companies listed under the "Special Monitoring" board on the IDX; thus, the results cannot be generalized to other sectors. Future researchers are encouraged to expand the study to other industries such as Infrastructure, Energy, or Banking & Finance to compare financial stability across sectors with different characteristics.
2) The variables used include only Current Ratio (CR) and Debt to Asset Ratio (DAR) as independent variables and Return on Assets (ROA) as the mediating variable, without considering other factors that may also influence financial distress. Future research is recommended to include additional variables such as cash flow ratio, sales growth, firm size, or audit opinion to provide a more comprehensive view of a firm's financial condition.
3) The Zmijewski model applied in this study includes CR, DAR, and ROA as part of its calculation formula, which are also used as main proxies in the regression model. This caused the Adjusted R^2 value to reach 1 in one model, limiting flexibility in interpreting the influence of other variables outside the formula. Future researchers may consider alternative financial distress prediction models such as the Altman Z-Score, Springate, or Grover models to compare the accuracy of distress detection.

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