

The Effect of Institutional Ownership, Company Size, Profitability, and Tangibility on Capital Structure in Non-Cyclical Consumer Sector Companies Listed on The Indonesia Stock Exchange

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Received: 28-11-2024

Accepted: 07-25-2025

Published: 17-04-2026

How to cite: Putrandy, L., & Santoso, H. (2026). The effect of institutional ownership, company size, profitability, and tangibility on capital structure in non-cyclical consumer sector companies listed on the Indonesia Stock Exchange. *Journal of Management and Business Review*, 23(1), 31-41. <https://doi.org/10.34149/jmbr.v23i1.765>



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ABSTRACT

This study aims to examine the effect of these variables on the capital structure of non-cyclical consumer sector companies listed on the Indonesia Stock Exchange. This study employs a quantitative approach using secondary data obtained from firms' financial statements for the period 2018–2022. The sample was selected using a purposive sampling method, resulting in 67 companies with a total of 335 observations. The data were analyzed using panel data regression. The results show that institutional ownership has a positive and significant effect on capital structure, while profitability has a significant negative effect. Meanwhile, firm size and tangibility do not have a significant effect on capital structure. These findings support agency theory and pecking order theory in explaining corporate financing decisions. Practically, the findings provide insights for managers and investors in determining optimal financing strategies. Theoretically, this study contributes to the literature on capital structure determinants in companies operating in emerging markets.

Keywords:

Agency theory, capital structure, company size, institutional ownership, pecking order theory, profitability, tangibility; trade-off theory

ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh variabel-variabel tersebut terhadap struktur modal pada perusahaan sektor konsumen non-siklikal yang terdaftar di Bursa Efek Indonesia. Penelitian ini menggunakan pendekatan kuantitatif dengan data sekunder yang diperoleh dari laporan keuangan perusahaan selama periode 2018–2022. Sampel penelitian dipilih menggunakan metode purposive sampling sehingga diperoleh 67 perusahaan dengan total 335 observasi. Analisis data dilakukan menggunakan regresi data panel. Hasil penelitian menunjukkan bahwa kepemilikan institusional berpengaruh positif dan signifikan terhadap struktur modal, sedangkan profitabilitas berpengaruh negatif dan signifikan. Sementara itu, ukuran perusahaan dan tangibilitas tidak menunjukkan pengaruh yang signifikan terhadap struktur modal. Temuan ini mendukung teori keagenan dan teori pecking order dalam menjelaskan keputusan pendanaan perusahaan. Secara praktis, hasil penelitian ini memberikan wawasan bagi manajer dan investor dalam menentukan strategi pendanaan yang optimal. Secara teoritis, penelitian ini memperkaya literatur mengenai determinan struktur modal pada perusahaan di pasar negara berkembang.

Kata Kunci:

Teori keagenan, struktur modal, ukuran perusahaan, kepemilikan institusional, teori pecking order, profitabilitas, tangibilitas, teori pertukaran

INTRODUCTION

Capital structure decisions play an important role in determining a company's financial stability and long-term performance. The way firms combine debt and equity financing influences their risk exposure, investment capability, and overall firm value. In emerging markets such as Indonesia, determining an appropriate capital structure is particularly important because firms face various financial constraints, information asymmetry, and volatile economic conditions. Companies operating in the non-cyclical consumer sector generally produce essential goods such as food, beverages, and household products, making them relatively resilient to economic fluctuations. However, despite this stability, firms in this sector still face challenges in determining optimal financing strategies, especially during periods of economic uncertainty and structural changes in the global economy (Jensen & Beck, 2023).

Several financial theories have been widely used to explain corporate capital structure decisions. Trade-off theory suggests that firms attempt to determine an optimal capital structure by balancing the benefits of debt, such as tax advantages, with the potential costs of financial distress and bankruptcy. Firms therefore adjust their leverage to achieve an optimal level that maximizes firm value. Recent empirical studies confirm that firm-specific characteristics such as profitability, growth opportunities, and firm size play an important role in determining capital structure decisions (Khan, Akhtar & Qasem, 2024).

Another important theoretical perspective is agency theory, which explains how conflicts of interest between managers and shareholders may influence corporate financial decisions. Institutional investors play an important role in reducing agency conflicts by strengthening monitoring mechanisms and encouraging more disciplined managerial decision-making. Empirical evidence shows that institutional ownership can influence corporate governance quality and affect financial policies, including financing and capital structure decisions (Sudiyatno *et al.*, 2023).

In addition, the Pecking Order Theory provides a fundamental explanation of firms' financing preferences. This theory states that information asymmetry exists between company managers and external investors, where managers possess more accurate information regarding the firm's financial condition and future prospects. Due to this asymmetry, external financing sources—such as debt and equity—are generally more costly than internal financing sources like retained earnings. As a result, firms tend to follow a hierarchical financing preference: first using internal funds, then debt financing, and issuing equity only as a last resort. This financing behavior is widely observed in firms operating in emerging markets where capital market efficiency and transparency are relatively limited (Jensen & Beck, 2023).

Previous studies have examined various determinants of capital structure, including institutional ownership, firm size, profitability, and asset tangibility. However, empirical findings

remain inconsistent across different contexts and industries. For example, recent studies show that institutional ownership can influence corporate financial decisions by improving governance and monitoring mechanisms, which may affect firms' leverage policies (Suseno *et al.*, 2026). Similarly, the relationship between firm size and capital structure has produced mixed findings. Some studies suggest that larger firms tend to have higher leverage because they have better access to financial markets and lower perceived bankruptcy risk. However, other studies indicate that firm size does not always significantly influence capital structure decisions, particularly in industries where internal financing is dominant (Desai, 2021).

Profitability is also frequently examined as a determinant of capital structure. According to the Pecking Order Theory, profitable firms tend to rely more on internal financing and therefore maintain lower levels of debt. Recent empirical evidence supports this argument by showing that profitability often has a negative relationship with leverage, particularly in emerging markets where firms prefer internal financing sources (Khan *et al.*, 2024). The role of asset tangibility in capital structure decisions has also been widely debated. Firms with higher tangible assets are generally able to obtain more external financing because these assets can be used as collateral. However, empirical studies indicate that the effect of tangibility may vary depending on industry characteristics and financial market conditions (Bayuny *et al.*, 2025).

Despite the large number of studies on capital structure determinants, several research gaps remain. First, many previous studies were conducted in different industrial contexts and countries, making it difficult to generalize their findings to the Indonesian non-cyclical consumer sector. Second, empirical results on the relationship between institutional ownership, firm size, profitability, tangibility, and capital structure remain inconsistent. Third, relatively limited studies examine these relationships during periods of major economic disruption, such as the COVID-19 pandemic, which significantly affected corporate financial decisions.

Therefore, this study aims to analyze the effect of institutional ownership, firm size, profitability, and tangibility on the capital structure of non-cyclical consumer sector companies listed on the Indonesia Stock Exchange during the period 2018–2022. By incorporating the pandemic period into the analysis, this research provides updated empirical evidence on capital structure determinants in emerging markets. The findings are expected to contribute to the literature on corporate financing decisions and provide practical insights for managers and investors in designing optimal financing strategies.

RESEARCH METHODS

This study analyzed financial reports from non-cyclical consumer sector companies listed on the Indonesian stock exchange over five years, from 2018 to 2022. It used a quantitative research approach with secondary data from these financial reports. From the 125 non-cyclical consumer sector

companies listed, a purposive sampling method was applied based on specific criteria: 1). Companies listed before 2019; 2). Companies meeting IPO requirements before 2019; 3). Companies that issued annual reports during the study period; 4). Companies are not suspended during this period. This process resulted in a sample of 67 companies for analysis.

The dependent variable in the study, capital structure, was measured using the Debt Equity Ratio (DER) (Harjito & Martono, 2011). The independent variables included institutional ownership, measured by Institutional Ownership (IO) according to (Pirzada *et al.*, 2015), Company size measured by the Natural Logarithm (LN) according to (Serghiescu, 2014), Profitability measured by Return On Assets (ROA) according to (Ahmed *et al.*, 2024), and Tangibility measured by Fixed Asset (FA) according to (Serghiescu, 2014). These variables were selected because profitability, tangibility, and company size have a relationship with capital structure, influenced by the variables listed (Zurigat, 2009). Institutional ownership was included to re-verify previous research findings, which had shown varying results, as noted in (Thesarani, 2017) (Chung & Wang, 2014) (Pirzada *et al.*, 2015), (Haryanto *et al.*, 2022). The data was analyzed using panel data processing, resulting in the following equation:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + \dots + b_nX_n$$

$$\text{Capital Structure} = \alpha + \beta_1\text{Institutional Ownership} + \beta_2\text{Company Size} + \beta_3\text{Profitability} + \beta_4\text{Tangibility} + e$$

Institutional ownership exerts substantial influence on a company's capital structure. Major institutions wield significant managerial sway, advocating for prudent financial practices and endorsing strategic long-term financial decisions. This typically enhances financial oversight and stability, despite variations in institutional strategies affecting capital structuring. Previous studies have yielded conflicting results: while some found no impact of institutional ownership on capital structure (Pirzada *et al.*, 2015) (Haryanto *et al.*, 2022), others suggested a detrimental effect (Thesarani, 2017) (Chung & Wang, 2014). Thus, the hypothesis posited in this research asserts that institutional ownership hurts capital structure H₁: Institutional ownership hurts capital structure

The trade-off theory suggests that larger companies typically maintain higher debt ratios compared to smaller ones. In contrast, the pecking order theory proposes that larger firms prefer equity financing over debt, leading to lower debt ratios (Chang *et al.*, 2014). Previous research has shown varied results: while some studies found no significant impact of company size on capital structure (Handoo, 2014; Tongkong 2012) others indicated a negative effect (Purnima Rao, 2019) (Thippayana, 2014). Moreover, one study (Guner, 2016) found that company size adversely affects capital structure. Thus, the hypothesis put forward in this research asserts that company size hurts capital structure H₂: Company size hurts capital structure

The trade-off theory suggests that highly profitable companies may choose to borrow more to shield their taxable income. Conversely, according to agency theory, less profitable companies often

struggle with free cash flow issues, leading them to maintain higher debt ratios to restrict managerial discretion. However, the pecking order theory argues that profitable firms tend to prefer lower debt ratios over time, relying instead on internal resources for investment and minimizing the need for external debt financing (Chang *et al.*, 2014). Previous research has shown mixed results: some studies indicated that profitability hurts capital structure (Tongkong, 2012) (Guner, 2016) (Purnima Rao, 2019) (Thippayana, 2014) (Serghiescu, 2014), while others found no significant effect (Handoo, 2014). Therefore, the hypothesis proposed in this research asserts that profitability hurts capital structure H3: Profitability hurts capital structure

Companies possessing significant tangible assets often maintain higher debt ratios because these assets can serve as collateral, thereby reducing bankruptcy costs and increasing flexibility in securing financing. This perspective is supported by the trade-off theory, pecking order theory, and agency theory, all of which highlight the importance of tangible assets in a firm's debt financing decisions. Previous research has yielded conflicting findings: some studies indicated that tangibility negatively impacts capital structure (Purnima Rao, 2019) (Thippayana, 2014), while others found no significant effect (Handoo, 2014) (Tongkong, 2012) (Serghiescu, 2014). Therefore, the hypothesis proposed in this research suggests that tangibility hurts capital structure H4: Tangibility hurts capital structure

RESULT AND DISCUSSION

Table 1. Descriptive Statistics

	X ₁	X ₂	X ₃	X ₄	Y
Mean	0.656328	2900.343	0.039612	0.346806	1.885731
Median	0.710000	2897.000	0.040000	0.330000	0.990000
Maximum	0.980000	3283.000	0.610000	0.830000	29.32000
Minimum	0.000000	2523.000	-0.530000	0.000000	-10.31000
Std. Dev.	0.235402	156.6509	0.115347	0.184067	3.820694
Skewness	-1.219676	-0.025107	0.525056	0.277521	4.413528
Kurtosis	4.102852	2.758965	8.846451	2.461616	26.64172
Jarque-Bera	100.0355	0.846147	492.5014	8.346074	8889.334
Probability	0.000000	0.655030	0.000000	0.015405	0.000000
Sum	219.8700	971615.0	13.27000	116.1800	631.7200
Sum Sq. Dev.	18.50838	819619.0	4.443850	11.31608	4875.632
Observations	335	335	335	335	335

Source: Authors' work (2024)

The descriptive statistics reveal that there are 335 data points. The mean values for each variable are as follows: X1 is 0.656328, X2 is 2900.343, X3 is 0.039612, X4 is 0.346806, and Y is 1.885731. Standard deviations are as follows: X1 is 0.235402, X2 is 156.6509, X3 is 0.115347, and Y's standard deviation is not specified. Most variables exhibit distributions close to their respective means, except for X3 and Y, where their standard deviations exceed their means, indicating considerable variability in these data sets.

Table 2. Lagrange Multipliers

Test Hypothesis

	Cross-section	Time	Both
Breusch-Pagan	85.75324 (0.0000)	1.289117 (0.2562)	87.04236 (0.0000)
Honda	9.260305 (0.0000)	1.135393 (0.1281)	7.350868 (0.0000)
King-Wu	9.260305 (0.0000)	1.135393 (0.1281)	3.316112 (0.0005)
Standardized Honda	9.789229 (0.0000)	1.591713 (0.0557)	2.289400 (0.2526)
Standardized King-Wu	9.789229 (0.0000)	1.591713 (0.0557)	0.666182 (0.2526)
Gourieroux, <i>et al.</i>	-	-	87.04236 (0.0000)

Source: Authors' work (2024)

According to the Eviews 12 output table, the cross-section probability value (Breusch-Pagan) is 0.0000, indicating significance at the 5% level. This rejection of the null hypothesis (H0) supports the alternative hypothesis (Ha), suggesting that the Random Effect Model (REM) is appropriate, as referenced in (Gujarati & Porter, 2009). If the REM, utilizing the generalized least squares (GLS) estimation method, adequately addresses heteroscedasticity and autocorrelation, traditional assumption testing may be unnecessary.

Table 3. F table and coefficient of determination (R²)

R-Squared	0.061872
Adjusted R-squared	0.050501
S.E. of regression	2.885606
F-statistic	5.441137
Prob (F-statistic)	0.000297

Source: Authors' work (2024)

The computed F value of 5.441137 exceeds both the critical F value of 2.399013 and the significance level of 0.05, leading to the rejection of the null hypothesis (H0) and acceptance of the alternative hypothesis (Ha). This indicates that institutional ownership, company size, profitability, and tangibility collectively influence the capital structure of non-cyclical consumer sector companies. The adjusted R-squared value of 0.050501 (5.0501%) suggests that these independent variables— institutional ownership, company size, profitability, and tangibility—can reasonably explain variations in the capital structure of non-cyclical consumer sector companies listed on the Indonesian stock exchange

Table 4. T table

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.344994	5.680912	-0.236757	0.8130
X ₁	3.174096	1.273917	2.491603	0.0132
X ₂	0.000740	0.002001	0.369766	0.7118
X ₃	-6.793552	1.941817	-3.498555	0.0005
X ₄	-2.101882	1.515260	-1.387143	0.1663

Source: Authors' work (2024)

Based on the output table, the following regression equation is obtained:

$$\gamma = -1.34 + 3.17X1 + 0.001X2 - 6.79X3 - 2.10X4 + (CX=R)$$

The t-test results for the institutional ownership variable (IO) in Table 3 show a calculated t-value of 2.491603, exceeding the critical t-value of 1.967113 at a significance level of 0.05. Thus, the null hypothesis (H0) is rejected in favor of the alternative hypothesis (Ha), suggesting that institutional ownership (IO) positively influences the debt-to-equity ratio (DER or Y). These findings contradict prior studies (Pirzada *et al.*, 2015) (Haryanto *et al.*, 2022), which concluded that IO does not affect DER, and (Thesarani, 2017) (Chung & Wang, 2014) which suggested IO hurts DER.

For the company size variable (LN or X2), the t-test in Table 3 yielded a calculated t value of 0.369766, below the critical t value of 1.967113 at a significance level of 0.05. Therefore, the null hypothesis (H0) is accepted, indicating that company size (LN or X2) does not significantly affect DER (Y). These results align with previous research (Handoo, 2014) (Tongkong, 2012), which found no relationship between company size and DER, (Guner, 2016) (Purnima Rao, 2019) (Thippayana, 2014), which suggested that company size negatively affects capital structure.

In Table 3, the t-test results for the return on assets variable (ROA or X3) show a calculated t-value of 3.498555, exceeding the critical t-value of 1.967113 at a significance level of 0.05. Consequently, the null hypothesis (H0) is rejected in favor of the alternative hypothesis (Ha), indicating that return on assets (ROA or X3) hurts DER (Y). These findings are consistent with previous research (Tongkong, 2012) (Guner, 2016) (Purnima Rao, 2019) (Thippayana, 2014) (Serghiescu, 2014), which concluded that ROA negatively affects DER, whereas one study (Handoo, 2014) found no significant impact of ROA on DER.

According to Table 3, the t-test results for the fixed assets variable (FA or X4) yielded a calculated t value of 1.387143, below the critical t value of 1.967113 at a significance level of 0.05. Therefore, the null hypothesis (H0) is accepted, indicating that fixed assets (FA or X4) do not significantly affect DER (Y). These findings are in line with previous research (Handoo, 2014) (Tongkong, 2012) (Thippayana, 2014) (Serghiescu, 2014), which found no significant relationship between fixed assets and DER, although one study (Purnima Rao, 2019) suggested a positive effect of fixed assets on DER.

Discussion

The findings of this study provide several insights into the determinants of capital structure in companies within the non-cyclical consumer sector listed on the Indonesia Stock Exchange. The results indicate that institutional ownership has a positive and significant effect on the debt-to-equity ratio (DER). This finding suggests that institutional investors may influence corporate financing decisions by encouraging firms to utilize external financing as part of their capital structure strategy. Institutional investors generally have stronger monitoring capabilities and greater influence over managerial decisions, which can affect financial policies and increase the use of debt financing. This result is

consistent with previous studies that highlight the important role of institutional ownership in strengthening corporate governance and influencing financial decisions (Nguyen & Nguyen, 2020; Vo & Ellis, 2021).

In contrast, firm size does not have a significant effect on capital structure. This indicates that larger companies do not necessarily rely more on debt financing than smaller firms. One possible explanation is that companies in the non-cyclical consumer sector tend to have relatively stable cash flows and business operations, allowing them to maintain flexible financing strategies regardless of company size. This finding suggests that firm size alone may not be a dominant determinant of capital structure decisions in certain industries, particularly those characterized by stable demand conditions.

Furthermore, profitability shows a negative and significant relationship with capital structure. This finding supports the Pecking Order Theory, which states that companies prioritize internal financing sources, such as retained earnings, before seeking external financing due to information asymmetry between managers and external investors. Firms with higher profitability tend to reduce their reliance on debt because they have sufficient internal funds to support their operational and investment activities. Similar findings have also been reported in recent empirical studies that identify profitability as one of the key determinants of corporate capital structure (Dang *et al.*, 2021; Nguyen *et al.*, 2022).

Meanwhile, fixed assets do not significantly affect capital structure in this study. Although fixed assets are often considered as collateral that can facilitate access to external financing, the results suggest that asset tangibility does not necessarily determine the level of debt used by companies in the observed sector. This finding may indicate that internal financial performance and ownership structure play a more important role in shaping financing decisions than asset composition.

Overall, this study contributes to the literature by providing empirical evidence on capital structure determinants in the Indonesian non-cyclical consumer sector, which has received relatively limited attention in recent research. Unlike many previous studies that focus primarily on firm characteristics, this research highlights the importance of ownership structure, particularly institutional ownership, as a factor influencing capital structure decisions. Therefore, this study extends the discussion of capital structure determinants by emphasizing the role of both internal financial capability and corporate governance mechanisms in shaping firms' financing behavior

CONCLUSION AND RECCOMENDATION

Based on the statistical test results, institutional ownership (IO) has a positive and significant effect on the debt-to-equity ratio (DER). This indicates that higher institutional ownership tends to encourage companies to utilize more debt in their capital structure. Meanwhile, firm size (LN) does not have a significant effect on DER, suggesting that larger companies do not necessarily rely more on debt

financing. Profitability (ROA) shows a negative and significant relationship with DER, indicating that firms with higher profitability tend to rely more on internal financing rather than external debt, which is consistent with the Pecking Order Theory. In contrast, fixed assets (FA) do not significantly influence DER, implying that the proportion of fixed assets does not necessarily determine the level of debt used by the firm.

Despite its contributions, this study has several limitations. First, the research focuses only on companies in the non-cyclical consumer sector listed on the Indonesia Stock Exchange, which may limit the generalizability of the findings to other sectors. Second, the study only includes four independent variables—institutional ownership, firm size, profitability, and fixed assets—while other factors such as liquidity, growth opportunities, business risk, and macroeconomic conditions may also influence capital structure decisions. Third, the observation period is limited to 2018–2022, which may not fully capture long-term corporate financing behavior. For future research, it is recommended to include additional variables that may influence capital structure decisions, such as liquidity, growth opportunities, and corporate governance factors. Future studies may also consider examining moderating or mediating variables and extending the observation period to obtain more comprehensive insights into the determinants of capital structure.

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