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Determinants of Capital Structure: Evidence from Technology Firms in Indonesia

Faktor-Faktor yang Mempengaruhi Struktur Modal: Bukti dari Perusahaan Teknologi di Indonesia

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Abstract - This study aims to examine the determinants of capital structure in technology firms listed on the Indonesia Stock Exchange (IDX), focusing on the roles of profitability, firm size, asset tangibility, and non-debt tax shields. The research adopts a quantitative approach using secondary data derived from audited annual reports of technology companies for the 2017-2021 period. A purposive sampling technique yielded 109 firm-year observations. The analysis employed multiple linear regression to evaluate the effect of the independent variables on capital structure, which is proxied by the debt-to-equity ratio (DER). Data were processed and analyzed using multiple linear regression with the assistance of SPSS version 25. The findings reveal that asset tangibility and non-debt tax shields have a statistically significant negative influence on capital structure. In contrast, profitability and firm size show no significant relationship. These results suggest that companies with greater tangible assets and higher non-debt tax shields, such as depreciation, tend to reduce reliance on debt financing and prefer internal sources of capital. The novelty of this research lies in its focus on the Indonesian technology sector, which remains underexplored in capital structure literature, particularly in emerging markets.

Keywords: Asset Tangibility, Capital Structure, Firm Size, Non-Debt Tax Shield, Profitability.

Abstrak *- Penelitian ini bertujuan untuk mengkaji penentu struktur permodalan pada perusahaan teknologi yang terdaftar di Bursa Efek Indonesia (BEI), dengan fokus pada peran profitabilitas, ukuran perusahaan, tangbilitas aset, dan perisai pajak non-utang. Penelitian ini mengadopsi pendekatan kuantitatif menggunakan data sekunder yang berasal dari laporan tahunan perusahaan teknologi yang telah diaudit untuk periode 2017-2021. Teknik pengambilan sampel purposive menghasilkan 109 pengamatan tahun perusahaan. Analisis menggunakan regresi linier berganda untuk mengevaluasi efek variabel independen pada struktur modal, yang diproksi oleh rasio utang terhadap ekuitas (DER).* Data diolah dan dianalisis menggunakan regresi linier berganda dengan bantuan SPSS versi 25. *Temuan ini mengungkapkan bahwa tangbilitas aset dan perisai pajak non-utang memiliki pengaruh negatif yang signifikan secara statistik terhadap struktur modal. Sebaliknya, profitabilitas dan ukuran perusahaan tidak menunjukkan hubungan yang signifikan. Hasil ini menunjukkan bahwa perusahaan dengan aset berwujud yang lebih besar dan perlindungan pajak non-utang yang lebih tinggi, seperti depresiasi, cenderung mengurangi ketergantungan pada pembiayaan utang dan lebih memilih sumber modal internal. Kebaruan dari penelitian ini terletak pada fokusnya pada sektor teknologi Indonesia, yang masih kurang dieksplorasi dalam literatur struktur permodalan, khususnya di pasar negara berkembang.*

Kata Kunci*:* Asset Tangibility, Firm Size, Non-Debt Tax Shield, Profitability, *Struktur Modal*.

INTRODUCTION

The capital structure shows how a company's finances are arranged, balancing long-term debt and its own equity (Wahyu et al., 2022). Funding decisions are crucial for managers because they relate to the investments the company will undertake and are essential for building and ensuring the company's survival (Astuti et al., 2023). A company's capital structure influences its financial stability and stock price (Rifiana et al., 2021). External capital includes long-term and short-term debt, while internal capital consists of retained earnings and owner's equity. Balancing internal and external capital is crucial for establishing an optimal capital structure. A robust capital structure enhances a company's operational performance (Banuray, 2022).

If the company faces issues in managing funding from its own capital, it can consider external sources. The optimal use of debt depends on the balance between the profits and losses caused by the funding

source. As long as each debt benefits the company, using debt is still acceptable. If the cost of borrowing exceeds the advantages, then incurring debt is no longer advisable (Suryani & Sari, 2020). One of the companies that need a good capital structure is companies in the technology sector. In Indonesia, the technology sector was previously combined with other sectors. However, in 2021, the IDX introduced the IDX-IC classification, which separates the technology sector as a standalone industry. The technology sector's performance has been very robust; in early 2021, during the COVID-19 pandemic, it boosted the IDX stock index by as much as 184.08% (Puspitasari, 2021). Technology companies are different from other companies because they rely more on intellectual capital than physical assets, which makes the company's value and prospects difficult to assess and can lead to debt financing challenges due to the lack of tangible assets as collateral (Coleman & Robb, 2012). The nature and risks associated with technology companies require them to determine a solid balance between debt and equity funding, which will impact their financing strategies.

Boateng et al. (2022) conducted a review of 68 journal articles published in Divers High between 2014 and 2020 that explored various determinants of capital structure. Their review highlighted several prominent factors that influence capital structure decisions, including profitability, firm size, tangibility of assets, asset growth, liquidity, non-debt tax shields, firm age, and earnings volatility. The present study focuses on how these variables affect the capital structure of technology companies listed on the Indonesia Stock Exchange (IDX) during the period 2017-2021. The focus on technology sector companies is due to the phenomenon of capital structure. Fachri & Adiyanto (2019) explained that the DER level of one of the technology sector companies, such as Elang Mahkota Teknologi Tbk, continues to increase. A higher DER indicates a greater proportion of total debt relative to equity, which impacts the company's burden on external parties (creditors). (Musdafia et al., 2025) stated that capital structure has negative effect to company value. We used four determinant factors from Boateng et al. (2022) profitability, company size, tangible assets, and non-debt tax shields. These factors were selected due to inconsistencies in previous study results. Dawud & Hidayat's (2019) research indicates that higher profitability negatively impacts capital structure. Profitability ratios measure how effectively a company manages to generate profits. Companies with high ratios can earn more income and generate maximum profits, resulting in larger internal capital and less reliance on debt. On the other hand, Jayadi et al. (2022) discovered that profitability positively and significantly affects capital structure. A higher profitability ratio reflects a greater return, indicating strong prospects for the company and signaling confidence to investors, creditors, and shareholders-thus encouraging them to invest more capital. It means that higher profitability correlates with higher external capital or increased debt levels.

Another element influencing capital structure is firm size. Ningrum & Khairunnisa (2022) revealed a significant negative relationship between company size and capital structure. They explained that larger firms typically possess greater internal resources from retained earnings, which allows them to finance their investments more independently. This supports the pecking order theory, which posits that bigger companies are less dependent on debt due to their stronger internal financing capacity. On the other hand, Rifiana et al. (2021) argued that firm size does not always determine capital structure decisions, as many companies prefer to use internal funds first and only turn to external financing when necessary.

In addition, Hamzah (2021) highlighted that a higher proportion of fixed assets-reflected in the asset structure ratio-can improve a company's access to external capital. He also noted that asset growth may enhance investor trust, indicating a potential positive link between asset structure and capital structure. In contrast, Gusti & Budiarti (2019) reported that asset structure had no observable impact on capital structure. Meanwhile, Efita (2023) found a significantly negative relationship: as the proportion of fixed assets increases, companies tend to reduce their reliance on debt. This is because a higher level of fixed assets often corresponds with greater internal capital availability, diminishing the need for external borrowing.

Mayliza et al. (2022) indicated that non-debt tax shields have a significant negative impact on the capital structure. A substantial non-debt tax shield diminishes a company's debt levels. Greater depreciation suggests the company holds significant fixed assets; the more fixed assets invested, the higher the depreciation, leading to greater tax savings. As a result, internal funds grow, decreasing the reliance on external financing such as debt. Conversely, Dewanti (2023) argued that non-debt tax shields do

not affect capital structure because depreciation-related tax benefits cannot substitute the advantages of debt. Significant depreciation does not lead companies to reduce debt; instead, it may signify that the company possesses ample assets, which can serve as collateral.

Despite the extensive literature on capital structure, limited attention has been paid to the technology sector in emerging markets such as Indonesia, where firms often face unique financing challenges due to high innovation costs and rapid industry dynamics. This study investigates how profitability, firm size, asset tangibility, and non-debt tax shields influence capital structure decisions in Indonesian technology firms, a topic that remains underexplored. The findings are expected to offer both theoretical and practical benefits. Theoretically, this research enriches the discourse on capital structure by examining the relevance of pecking order theory and trade-off theory within the context of the Indonesian technology sector. Practically, the results can help managers develop financing strategies that balance internal and external funding sources while minimising risks. The novelty of this study lies in its focus on technology companies listed on the Indonesia Stock Exchange (IDX) during 2017-2021, providing empirical evidence from a sector and setting rarely explored in capital structure analysis. Consequently, the study contributes to bridging research gaps and offers valuable insights for academics, practitioners, and policymakers.

LITERATURE REVIEW

Trade-off Theory

The trade-off theory of capital structure posits that although using debt offers certain benefits, it is also accompanied by various risks. As explained by Serrasqueiro & Caetano (2015), this theory illustrates the equilibrium a firm seeks between the tax advantages gained from interest payments on debt and the potential expenses related to financial distress and the risk of insolvency. Kartikayanti & Ardini (2021) further clarify the relationship among taxation, bankruptcy risk, and debt use, which results from the funding choices made by firms. Optimal debt levels rely on balancing the benefits and drawbacks of the selected funding source. As long as debt provides net benefits to the company, its use is considered acceptable. However, if the sacrifices outweigh the benefits, debt financing should be limited. Brigham & Houston (2011) argue that although increasing debt might offer tax shield benefits, in reality, firms cannot rely on unlimited debt because of the associated risks.

Higher debt levels inevitably lead to higher bankruptcy costs, prompting firms to set limits on debt use. When determining capital structure, bankruptcy costs play a key role, as an optimal structure is only possible when the tax shield benefits are balanced against the costs of excessive debt. Meilani & Wahyudin (2021) emphasize that increased debt usage can enhance a company's profitability, consistent with the trade-off theory. However, this also increases agency costs and the chance of financial distress. Additional borrowing is possible if the firm has sufficient tangible assets to collateralize the loan and if the advantages outweigh the costs. In essence, the trade-off theory highlights that while increased debt usage may boost a firm's returns, it simultaneously raises the likelihood of experiencing financial difficulties or insolvency. Therefore, a firm must find a balance between internal and external financing to maintain an optimal capital structure (Irawati & Komariyah, 2019).

Pecking Order Theory

The pecking order theory describes the hierarchical approach that firms follow when seeking additional financing, starting with internal resources before turning to external ones. According to Julimar & Priyadi (2021), this theory suggests that companies often prefer to raise funds by liquidating existing assets, such as buildings, land, equipment, and other tangible resources, rather than immediately seeking external financing. According to the pecking order theory, companies tend to prioritize internal funds over external financing options when meeting their capital needs. This preference comes from the belief that internal funding results in more favorable capital structure decisions (Suryani & Sari, 2020). Internal financing usually refers to retained earnings or equity capital generated within the firm and is generally favored by management over external financing, which often involves debt or issuing new equity (Hutabarat, 2022). Furthermore, the pecking order theory implies that highly profitable companies generally utilize lower levels of debt, as they are able to finance their operations using internally

generated resources, thereby minimizing dependence on external borrowing. Unlike theories that define an ideal debt ratio, this theory describes a financing hierarchy driven by the accessibility and expense of funds (Erisa & Henny, 2023). According to this theory, financial managers do not explicitly calculate an ideal leverage level. Instead, financing decisions are driven by investment needs. When investment opportunities come up, firms first use internal funds and only turn to external financing-like debt-as a last resort (Oktaviani & Widyaningsih, 2022). In conclusion, the pecking order theory highlights that companies prioritize internal funds for financing to avoid the risks associated with debt. External capital is typically considered only when internal financial resources are insufficient to support investment activities (Salsabila & Afriyenti, 2022).

Profitability and Capital Structure

Profitability reflects how effectively a company can generate net earnings over a specific period. It functions as an indicator of operational performance, especially in terms of returns from sales activities and invested assets (Caroline & Wahyudi, 2023), (Geraldine & Lestari, 2022). A highly profitable company tends to retain more internal funds as retained earnings. According to Kasmir (2019), profitability ratios are financial indicators used to evaluate how well a company can produce profits. These ratios also indicate how effectively management utilizes company resources, as shown by profits from sales and investments. Essentially, profitability ratios demonstrate the company's level of operational efficiency. A higher profitability typically boosts a firm's competitiveness within its industry. Based on the pecking order theory, companies with strong earnings performance generally prefer to finance their operations using internal resources rather than external debt. This preference stems from the notion that internal funding leads to more optimal capital structure decisions than relying on outside financing. Pratama et al. (2023) propose that highly profitable companies usually depend on internal sources-primarily retained earnings-because most of their funding requirements are fulfilled by the profits they generate. A company's higher profitability leads to more earnings being allocated to retained earnings, which can be used to support its operational activities. In other words, increased profitability reduces dependence on debt. Fitri & Kurnia (2023) as well as Dawud & Hidayat (2019) found that firms with greater profitability tend to use less debt, indicating an inverse relationship between profitability and capital structure. Practically, this suggests that as a company's profits rise, its dependence on external financing tends to decrease.

Firm Size and Capital Structure

Firm size may be measured using various indicators, including total assets, logarithmic value of assets, market capitalization, and other financial benchmarks (Ramadhan, 2021). Rosmanindar et al. (2023) argue that, fundamentally, firms can be categorized into three main groups: large firms, medium-sized firms, and small firms. Larger firms tend to have lower financial risks than smaller ones, thanks to their greater economic resilience and more robust internal control systems (Pratama & Wiksuana, 2016). As a firm grows larger, managers find it easier to access funding sources because the company's size is often viewed as a positive indicator that can enhance its valuation (Husain et al., 2022). Therefore, managerial decisions related to funding-aimed at increasing firm value and achieving an optimal capital structure are often affected by the firm's size (Irawati et al., 2022). Larger firms are considered to have a greater capacity to finance their operations independently compared to smaller firms. Companies with a strong financial position are usually more capable of funding operational activities and generating sustainable profits (Wansani, 2022). Ningrum & Khairunnisa (2022) suggest that as firm size increases, companies rely less on external funding because internal funds are sufficient to support their operations. Similarly, Jayadi et al. (2022) highlight that large firms typically do not increase their capital structure via external funding, as they already have significant internal funds or retained earnings. It aligns with the pecking order theory, which posits that larger companies are inclined to minimize debt usage. In essence, firms with greater size often exhibit lower levels of leverage, indicating a preference for internal over external financing.

Asset Tangibilitys and Capital Structure

Asset tangibility reflects the extent to which a firm's total assets are comprised of fixed or tangible assets such as property, plant, and equipment (Renalya & Purwasih, 2022). Tangible assets are resources that can be pledged as collateral to secure external financing. A greater share of tangible

assets typically suggests that more assets are available to serve as collateral for loans. Research by Dawud & Hidayat (2019) and Efita (2023) indicates that asset tangibility significantly negatively influences a company's capital structure. A greater share of tangible assets within a company's asset structure is typically linked to a decreased dependence on external borrowing. This suggests that firms with more tangible assets may depend less on external borrowing, potentially because they can fund operations internally or have less need to use assets as collateral.

Non-Debt Tax Shield and Capital Structure

The non-debt tax shield refers to the tax advantages gained through depreciation of physical assets. As explained by Purba et al. (2018), it includes deductions stemming from depreciation costs and credits associated with investment activities. Similarly, Djaddan & Ghozali (2017) define the non-debt tax shield as depreciation and amortization expenses that impact a firm's income or loss. Since depreciation and amortization are non-cash expenses, they act as internal sources of financing, potentially reducing the firm's reliance on debt.

Mayliza et al. (2022), provide empirical findings indicating that non-debt tax shields are negatively associated with capital structure. In essence, when a company has substantial non-debt tax shields, it tends to rely less on debt financing. This is because greater depreciation often reflects substantial investment in fixed assets, which leads to higher depreciation expenses and increased tax savings. These internal funds can then be used to finance operations, decreasing the need for external financing such as debt. Based on the pecking order theory, companies with ample internal resources are less inclined to seek external debt financing, as they prioritize using internal capital to meet their funding needs.

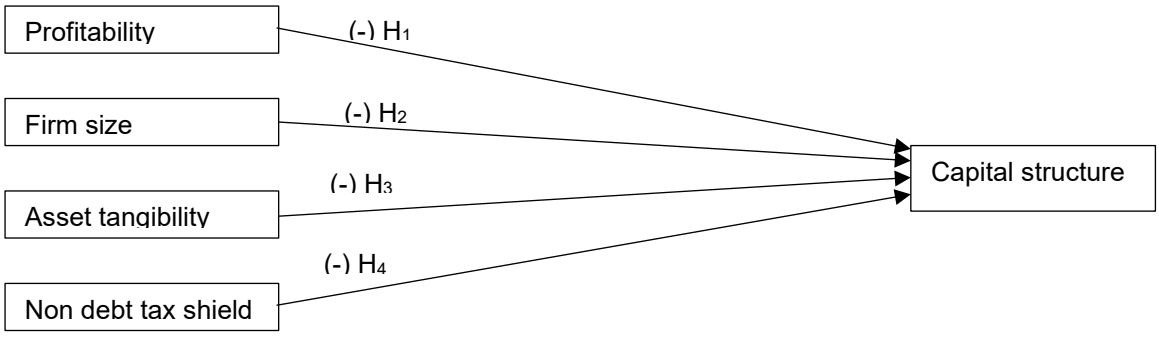

Figure 1. Research Framework

Research Hypotheses

Building on the theoretical framework and previous empirical findings, this study proposes four hypotheses to investigate the factors influencing capital structure in Indonesian technology firms.

H_1: Profitability has a negative effect on capital structure.

H_2: Firm size has a negative effect on capital structure.

H_3: Asset tangibility has a negative effect on capital structure.

H_4: Non-debt tax shield has a negative effect on capital structure.

RESEARCH METHOD

Table 1. Sample Collection Results

No.	Information	Total
1.	The number of companies operating in the manufacturing sub-sector within the technology industry and listed on the Indonesia Stock Exchange (IDX).	41
2.	The number of audited financial statement samples from 2017 to 2021.	205
3.	The number of audited financial statements not issued by companies in the technology sector in 2017-2021.	(83)
4.	Outlier	(13)
Total sample		109

Sorce: Data authors, 2025.

This research adopts a quantitative method utilizing secondary data, defined as information initially gathered for objectives other than the current study (Kuncoro, 2013). The data were obtained from the

official website of the Indonesia Stock Exchange, specifically focusing on audited annual reports of technology companies. The sample was determined using purposive sampling with the following criteria: (1) the company is listed on the IDX, (2) it has complete financial reports for the entire research period, and (3) it was not delisted during those years. The sample selection procedure is outlined in table 1. In total, 109 firm-year observations were included for hypothesis testing.

Data Analysis Procedure

The data analysis in this study was carried out through multiple stages to ensure the validity and reliability of the results. Firstly, data were collected from audited annual financial reports of technology companies listed on the Indonesia Stock Exchange (IDX) for the period 2017-2021. The data were then organised according to the research variables: profitability (ROA), firm size (log of total assets), asset tangibility (fixed assets to total assets ratio), non-debt tax shield (depreciation to total assets ratio), and capital structure (DER). Secondly, a series of classical assumption tests was performed, including tests for normality, multicollinearity, autocorrelation, and heteroscedasticity, to confirm that the data satisfied the requirements for regression analysis. Thirdly, hypothesis testing was conducted using multiple linear regression analysis, supported by SPSS version 25. This method was selected because it enables the simultaneous examination of the effects of various independent variables on a single dependent variable. Finally, model fitness was evaluated through the F-test (to assess the joint significance of the independent variables) and the coefficient of determination (R^2) (to gauge the model's explanatory power). Meanwhile, the t-test was utilised to investigate the partial effects of each independent variable on capital structure. These stages ensured that the research procedures adhered to established quantitative research techniques and yielded robust findings.

FINDINGS AND DISCUSSION

Findings

Table 2 presents the descriptive statistics of all variables examined in the study. The lowest observed value for capital structure was -1.06515, recorded by Cashlez Worldwide Indonesia Tbk. In contrast, the highest value was 2.58580, found in Limas Indonesia Makmur Tbk, indicating that the company's debt significantly exceeded its equity. On average, technology firms listed on the Indonesia Stock Exchange (IDX) between 2017 and 2021 had a debt-to-equity ratio (DER) of 0.5403. This suggests that approximately 54% of their capital structure was financed through debt.

Table 2. Descriptive Statistical Results

	N	Minimum	Maximum	Mean	Std. Deviation
Capital Structure	109	-1.06515	2.58580	0.54030	0.56564
Profitability	109	-0.50753	0.53659	0.02385	0.13433
Firm Size	109	20.47341	32.67533	26.8014	2.08401
Asset Tangibility	109	0.00090	1.53475	0.14276	0.22622
Non Debt Tax Shield	109	0.00006	0.10033	0.01871	0.02205
Valid N (listwise)	109				

Source: SPSS version 25.

Profitability, as indicated by return on assets (ROA), varied from -0.50753 in Trimegah Karya Pratama Tbk to 0.53659 in Distribusi Voucher Nusantara Tbk. On average, technology companies in the sample were able to generate profits of approximately 2.3% of their total assets. The average firm size, measured by the natural logarithm of total assets, was 26.8014. The smallest firm in terms of asset size was PT. Wira Global Solusi Tbk (log of total assets: 20.47341), while the largest was PT. GoTo Gojek Tokopedia Tbk (log of total assets: 32.67533). The average asset tangibility was 14%, indicating that a small proportion of total assets were fixed and could serve as collateral. The average non-debt tax shield (NDTS), represented by the depreciation-to-total assets ratio, was 0.01871, suggesting that depreciation contributed a small but notable component of tax savings across the sample.

A total of 109 firm-year data points met the classical assumption criteria and were included in the regression analysis. To examine the influence of the independent variables-profitability, firm size, asset tangibility, and non-debt tax shield-on the dependent variable, capital structure, a multiple linear regression analysis was performed. The regression results are detailed in table 3. As shown in table 4, the coefficient of determination (R^2) was 0.333, indicating that these four predictors account for 33.3%

of the variability in capital structure. The remaining 66.7% is explained by other variables not considered in this research (Ghozali, 2019).

Table 3. Determination Coefficient Test Results (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,577[a]	0,333	0,308	0,47060223

Predictors: (constant), non-debt tax shield, profitability, firm size, asset tangibility dependent. Variable: capital structure

Source: SPSS version 25.

Table 4. Multiple Linear Regression Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0,676	0,595		-1,136	0,259
	Profitability	0,154	0,345	0,037	0,445	0,657
	Firm Size	0,038	0,022	0,141	1,718	0,089
	Tangibility Asset	-1,109	0,267	-0,444	-4,160	0,000
	Non-debt tax shield	-18,437	2,747	0,719	-6,713	0,000

a. Dependent variable: capital structure

Source: SPSS version 25.

Table 5. Results of Simultaneous Significant Tests (F Test)

Model	Sum of Squares	DF	Mean Square	F	Sig.
1 Regression	11,522	4	2,881	13,006	0,000[b]
Residual	23,033	104	0,221		
Total	34,4555	108			

Dependent variable: capital structure.
Predictors: (constant), non debt tax shield, profitability, firm size, asset tangibility

Source: SPSS version 25.

As presented in table 5, the F-test produced a significance value of 0.000, which is lower than the 0.05 benchmark. This result confirms the overall validity of the regression model and indicates that the independent variables, when considered together, have a meaningful influence on capital structure. The findings from the multiple linear regression analysis offer important insights into the determinants of capital structure among technology companies in Indonesia. Hypotheses 3 and 4 are accepted, highlighting that both asset tangibility and non-debt tax shields (NDTS) significantly affect corporate leverage decisions.

Hypothesis 3, which posited that asset tangibility negatively affects capital structure, is supported with a significant negative coefficient of -1.109 ($p = 0.000 < \alpha = 0.05$). This indicates that companies with more tangible assets generally rely less on debt in their capital structure. The implication is that tangible assets particularly fixed assets like property, plant, and equipment can serve as internal financing sources, reducing the need for external debt. This supports the notion that firms with strong asset bases prefer to finance their operations internally due to lower financial risk and reduced cost of capital. These findings align with earlier studies by Hidayat & Samrotun (2021) and Efita (2023), both highlighting the inverse relationship between tangible assets and external financing requirements. In practical terms, this suggests that technology firms investing heavily in infrastructure or long-term equipment may become increasingly self-reliant, aligning their financing choices with long-term sustainability goals.

Hypothesis 4 is also confirmed, indicating a significant negative link between NDTS and capital structure, with a substantial coefficient of -18.437 ($p = 0.000 < \alpha = 0.05$). This indicates that companies with high depreciation expenses representing significant non-cash deductions tend to reduce their debt usage. Depreciation, as a non-debt tax shield, lowers taxable income and thereby provides an internal source of capital. According to the pecking order theory, companies favor using internal funds rather than external debt when they have enough internal resources. Thus, high NDTS diminishes the need for borrowing, reinforcing financial independence. This aligns with the findings of Mayliza et al. (2022), Ratnasari & Budiyanto (2016), Vanny et al. (2023), and Wahyu et al. (2022), who all identified a negative and significant relationship between NDTS and capital structure. The implication is that firms

with high capital intensity and depreciation expenses may prioritize financial flexibility and minimize the risks associated with leverage.

In contrast, hypotheses 1 and 2 are not supported. Profitability, as measured by ROA, does not significantly influence capital structure decisions. This result is somewhat counterintuitive, as profitable firms are often expected to rely less on debt. However, in the context of technology firms, profitability may be diverted toward innovation, R&D, or retained earnings to support future growth, rather than reducing leverage. This behavior reflects a strategic orientation where earnings are reinvested for long-term competitiveness rather than used to optimize short-term capital structure. This finding aligns with Lubis & Ginting (2023), who argue that profitability does not necessarily translate into lower debt levels, especially in growth-oriented industries like technology.

Similarly, firm size does not show a notable effect on capital structure. Although it is often assumed that larger firms have easier access to external financing and better resources, this does not significantly influence their capital structure creditworthiness, the findings suggest that both large and small firms prefer internal funds to meet their capital needs. This again echoes the pecking order theory, where firms, regardless of size, avoid debt unless internal funds are insufficient. Such behavior may also reflect a conservative approach to risk in Indonesia's emerging capital market. Supporting evidence from Rosmanindar et al. (2023), Efendi et al. (2021), and Hanbo & Zulaikha (2022) indicates that firm size alone is not a decisive factor in leverage decisions, possibly due to similar levels of financial conservatism or constraints in accessing capital markets across firm sizes.

Discussion

The findings of this study provide several insights into the determinants of capital structure in Indonesian technology firms. First, the evidence that asset tangibility negatively affects capital structure confirms prior studies (Hidayat et al., 2021). This suggests that firms with a higher proportion of fixed assets are less dependent on debt, as tangible assets can generate internal financing capacity. This aligns with the trade-off theory, which emphasizes balancing debt benefits and distress costs (Hidayat & Putri, 2018). Similarly, the significant negative impact of the non-debt tax shield supports the argument of Mayliza et al. (2022), and Vanny et al. (2023) that higher depreciation benefits reduce reliance on external borrowing. This result emphasizes the importance of internal financing strategies, reinforcing the applicability of the pecking order theory in the Indonesian technology sector.

However, in contrast to expectations, profitability and firm size do not significantly influence capital structure. This differs from some previous research (e.g.,Fitri, (2023), Ningrum & Khairunnisa (2022), but aligns with findings from Rosmanindar et al. (2023) and Efendi et al. (2021). One possible explanation is that technology firms in Indonesia tend to reinvest earnings into research and development (R&D) or distribute profits as dividends, rather than using them to reduce debt. Likewise, both large and small technology firms appear to prefer internal financing regardless of firm size, consistent with the pecking order theory. From a theoretical perspective, these results extend the application of the pecking order theory to the context of Indonesian technology companies, a sector characterized by rapid innovation and high investment risk. The study shows that internal financing preferences are particularly strong in this industry, where reliance on external debt may increase vulnerability to market uncertainty.

Although some results are consistent with prior studies, this research makes several contributions. First, it specifically focuses on technology companies listed on the IDX, a sector that remains underexplored compared to manufacturing and other industries in Indonesia. By analyzing 109 firm-year observations, this study offers updated empirical evidence in a post-digitalization era where technology firms face unique financing decisions. Second, the novelty of this research lies in its contextual contribution. While many studies on capital structure determinants focus on manufacturing industries, this research highlights how profitability, firm size, tangibility, and non-debt tax shields operate differently in technology firms, where intangible assets and R&D intensity often dominate. Third, the practical benefit of this study is to guide managers and investors. Managers can gain a better understanding of the role of fixed assets and depreciation in reducing debt dependency, while investors can gain insights into why profitability and firm size are less reliable predictors of leverage in technology-based businesses. Ultimately, these findings highlight the significance of internal financial strategies-

specifically, fixed asset investment and tax efficiency-in influencing capital structure decisions. For practitioners and policymakers, the emphasis should be on enhancing firms' internal capacity and improving tax-related incentives to support sustainable financing models.

CONCLUSION

This study explores the influence of profitability, company size, asset tangibility, and non-debt tax shields on the capital structure of technology sector firms listed on the Indonesia Stock Exchange (IDX) during the 2017-2021 period. A total of 109 firm-year data points were selected using purposive sampling and analyzed through multiple linear regression. The findings reveal that asset tangibility and non-debt tax shields have a significant negative effect on capital structure, confirming hypotheses three and four. Meanwhile, no significant relationship was found between capital structure and either profitability or firm size. These outcomes suggest that Indonesian technology companies with higher proportions of tangible assets or greater tax benefits from depreciation tend to rely less on external debt. This supports the pecking order theory, which posits a preference for internal financing over external borrowing. In contrast, the lack of significance for profitability and firm size may be due to internal capital reinvestment strategies, substantial R&D expenditures, or dividend policy considerations. Based on the results of this study, several recommendations can be made for future research. First, researchers are encouraged to expand the scope of the study beyond the technology sector to include various industries, thereby enhancing the generalizability of the results. Second, future studies could incorporate macroeconomic variables such as interest rates, inflation, or changes in government policy to capture external influences on capital structure decisions. Third, employing more sophisticated statistical techniques, like dynamic panel data analysis or fixed and random effects models, could provide deeper understanding of how these relationships change over time. Lastly, incorporating qualitative approaches-such as interviews with financial managers-can provide a richer understanding of the strategic considerations behind financing choices. Focusing on these aspects, future studies can help develop a deeper understanding of what influences capital structure in emerging markets.

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