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The Effect of Leverage on Profitability with Firm Size and Sales Growth as Moderating Variables in LQ-45 Companies Listed on the Indonesia Stock Exchange

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Abstract

This study examines the effect of financial leverage (Debt to Equity Ratio) on corporate profitability, measured by Return on Assets, Return on Equity, and Net Profit Margin, among companies listed in the LQ-45 Index of the Indonesia Stock Exchange. Firm size and sales growth are analyzed as moderating variables to understand how internal capacity and market performance influence the leverage–profitability relationship. The research applies a quantitative approach using secondary data from 45 listed companies during 2022–2024. Panel data analysis with a Fixed Effect Model (FEM) and Generalized Least Squares (GLS) correction was employed to address heteroscedasticity and autocorrelation issues. The results indicate that leverage has a significant negative effect on profitability, confirming the relevance of the Trade-Off Theory in the Indonesian capital market context. Moreover, firm size strengthens this negative relationship, while sales growth moderates it positively. These findings provide new insights into how financial structure decisions affect performance among large and liquid firms in emerging markets. The study contributes to financial management literature by validating classical capital structure theories within Indonesia's dynamic market environment.

INTRODUCTION

The capital market has a crucial function in sustaining national economic growth by facilitating capital formation, mobilizing savings, and providing alternative investment channels for individuals and institutions. In emerging economies such as Indonesia, the stock market not only serves as a platform for financing but also as an indicator of macroeconomic stability and investor confidence. Within this ecosystem, the LQ-45 Index plays a vital role as it comprises firms with the largest capitalization, highest liquidity, and stable financial performance. Maintaining financial soundness is thus essential for these companies, as it directly affects investor perception and firm valuation. One of the key elements determining this financial soundness is capital structure, particularly the proportion of debt to equity, which reflects how companies balance the trade-off between risk and return.

Capital structure remains a central issue in corporate finance because it shapes the relationship between debt policy, firm risk, and profitability. The Trade-Off Theory (Myers 1977) explains that firms attempt to achieve an optimal debt level that maximizes firm value by balancing tax advantages against the costs of potential financial distress. Complementarily, the Pecking Order Theory (Myers and Majluf 1984) posits that companies prefer internal funds first, then debt, and finally equity, due to information asymmetry and control considerations. The Resource-Based View (Barney 1991) adds another dimension by framing financial decision-making as part of a firm's strategic resource configuration that supports long-term competitiveness. Finally, the

Dynamic Capabilities Theory (Teece et al., 1997) underscores a firm's ability to adapt financial structures and investment decisions to changing environments an increasingly relevant lens amid post-pandemic volatility, digital transformation, and sustainability pressures.

Recent empirical studies provide new evidence on the leverage–profitability nexus in emerging markets. Kim, Jung, and Kim (2023) investigated ICT firms across Asia and found that excessive leverage reduces profit efficiency due to liquidity constraints, while moderate leverage improves efficiency through financial discipline. Similarly, Alabdulkarim et al. (2024) discovered that firm size significantly influences the nonlinear relationship between leverage and performance in Saudi and ASEAN markets, highlighting that larger firms can better manage debt burdens due to economies of scale and superior bargaining power. Conversely, Akpadaka et al. (2024) observed that high leverage diminishes firm value unless moderated by profitability and prudent financial policies. Together, these findings reinforce that leverage decisions are contingent upon firm-specific attributes and macroeconomic contexts.

Firm size is widely recognized as an important contingency variable. Larger firms typically enjoy easier access to credit, economies of scale, and stronger reputational capital, allowing them to negotiate better financing terms and sustain profitability even at higher leverage levels. (Maroef et al. 2022) demonstrated that size positively moderates the leverage–performance relationship in Indonesian manufacturing companies. (Heath and Sertsios 2022) likewise found that larger assets strengthen the negative effect of leverage on profitability because large firms rely more heavily on external borrowing, which increases financial costs when interest rates rise. These conflicting findings highlight that firm size may either amplify or mitigate the impact of leverage depending on market conditions and financial policy choices.

Another key determinant is sales growth, which indicates operational expansion and revenue generation capability. Firms experiencing rapid sales growth tend to utilize debt strategically to finance expansion and exploit market opportunities. Duarte, Galindo, and Montecinos (2021) confirmed that firms with higher growth rates experience improved profitability through efficient debt utilization. On the other hand, Dhanalakshmi et al. (2023)found that aggressive sales expansion can erode profitability if not supported by adequate working-capital management, as rising costs and short-term obligations strain liquidity. These insights affirm that sales growth moderates the leverage–profitability nexus in a dynamic way—positive under efficient capital management, but negative when growth outpaces internal financing capacity.

Despite extensive literature, empirical results remain inconclusive, especially in the context of Indonesian capital markets where economic and regulatory conditions evolve rapidly. Between 2020 and 2025, Indonesian firms have faced external shocks such as the COVID-19 pandemic, global supply-chain disruptions, rising interest rates, and shifts in investor risk appetite. These factors alter how companies manage debt and how profitability responds to leverage changes. For instance, Alabdulkarim et al. (2024) emphasized that post-pandemic financial flexibility becomes a critical determinant of firm resilience, urging the integration of dynamic capability frameworks in capital-structure analysis. Moreover, Dsouza et al. (2025) highlighted the growing role of digitalization and ESG-based financing, which reshape corporate borrowing strategies and performance outcomes.

The inconsistent findings across previous studies indicate a clear research gap. Most empirical investigations in Indonesia focus on single-sector samples or short observation periods, limiting generalizability. Few have examined leverage and profitability simultaneously with moderating variables such as firm size and sales growth within the LQ-45 Index, where firms share similar liquidity and investor exposure characteristics. Addressing this gap is essential to produce more representative insights into how leading Indonesian firms manage capital structures under market uncertainty. Furthermore, recent global trends such as the push toward green financing and digital transformation necessitate revisiting traditional financial theories to ensure their continued relevance in emerging markets.

From a theoretical perspective, this study contributes by bridging classical and modern frameworks. The Trade-Off and Pecking Order theories provide foundational logic explaining firms' financing preferences, while the Resource-Based View and Dynamic Capabilities Theory contextualize how these financial choices align with long-term competitiveness and adaptability. Incorporating recent empirical evidence from 2020–2025 enables a more nuanced understanding of how capital-structure decisions evolve in response to environmental turbulence. Integrating firm size and sales growth as moderating variables allows testing whether these structural and operational attributes strengthen or weaken the leverage–profitability relationship in Indonesia's post-pandemic economy. Such integration aligns with recent research calling for hybrid frameworks that unite static financial logic with dynamic strategic management reasoning (Alabdulkarim et al. 2024; Kim et al. 2023).

Accordingly, the present research aims to examine the effect of financial leverage on corporate profitability among companies listed in the LQ-45 Index on the Indonesia Stock Exchange during 2022–2024. The study further analyzes the moderating roles of firm size and sales growth in this relationship. By applying panel-data regression with Fixed Effect and GLS corrections, the research seeks to produce robust empirical evidence addressing heteroscedasticity and autocorrelation biases. This approach provides both theoretical and practical contributions: it validates the continuing relevance of classical capital-structure theories in a modern emerging-market setting, and it offers actionable guidance for corporate managers and investors in optimizing debt policy under uncertain economic conditions.

This study also carries implications for policymakers and regulators. Understanding how leverage interacts with profitability among leading listed firms helps authorities design financial policies that promote sustainable corporate performance without excessive risk exposure. Moreover, the findings may guide investment analysts in assessing firm stability beyond surface-level profitability indicators, especially when evaluating highly leveraged firms during economic downturns.

In summary, this research is motivated by the ongoing debate on whether leverage enhances or undermines firm profitability. It acknowledges that the relationship is shaped by contextual variables—size, growth, and adaptability and that these dimensions must be empirically validated in Indonesia's dynamic market environment. By integrating both established and contemporary theories with the most recent evidence (2020–2025), this study provides a comprehensive framework for understanding the complex interplay between capital structure and profitability in emerging markets.

METHODS

This study adopts a quantitative explanatory research design to empirically examine how financial leverage influences firm profitability and how this relationship is moderated by firm size and sales growth among companies listed in the LQ-45 Index on the Indonesia Stock Exchange (IDX) during the 2022–2024 period. The quantitative approach allows for the objective testing of causal relationships through numerical data and statistical analysis (Hair et al. 2021).

Research Design and Analytical Framework

The study employs a panel data framework combining time-series and cross-sectional observations to capture variations across firms and over time. This approach effectively addresses unobserved heterogeneity and minimizes omitted-variable bias (Gujarati 2009; Baltagi 2015). Based on the Chow and Hausman tests ($p < 0.05$ for all models), the Fixed Effect Model (FEM) was determined as the most appropriate estimator, confirming the existence of firm-specific effects. FEM enhances explanatory power by isolating unobserved heterogeneity and accounting for individual firm characteristics (Chen et al. 2021). All econometric estimations and diagnostics were conducted using EViews 12, ensuring precision and replicability of the statistical procedures.

Population and Sample

The study's population consists of all firms consistently listed in the LQ-45 Index between 2022 and 2024. Using purposive sampling, the following inclusion criteria were applied:
(1) firms remained continuously listed during the study period;
(2) published complete audited financial statements;
(3) were not delisted or suspended; and
(4) provided full data for all research variables.

After filtering, the final balanced panel comprised 17 firms observed across three years, resulting in 51 firm-year observations. This period represents the post-pandemic recovery stage when Indonesian corporations restructured financing and profitability strategies (Dsouza et al. 2025).

Data Collection and Variable Measurement

Secondary data were collected from firms' annual reports and official IDX publications. Variable operationalization follows established financial literature:

Tabel 1. Variable Measurement

Variable	Measurement Formula	Reference
Financial Leverage (DER)	Total Debt / Total Equity	Brigham (2019)
Profitability (ROA, ROE, NPM)	Net Income / Total Assets, Equity, and Sales	Essel (2024)
Firm Size (SIZE)	Natural Logarithm of Total Assets	Rajan and Zingales (1995)
Sales Growth (GROWTH / PP)	(Sales_t – Sales_t−1) / Sales_t−1	Essel (2024)

Sales growth appears as variable "PP" in the EViews dataset, retained for consistency with the statistical outputs. All variables were logarithmically transformed where necessary to achieve normal distribution and reduce scale distortion.

Model Specification

Two panel regression equations were specified:

Model 1 – Main Regression
$$Profitability_{it} = a + \beta 1 DER_{it} + \beta 2 SIZE_{it} + \beta 3 GROWTH_{it} + \varepsilon_{it}$$

Model 2 – Moderated Regression (MRA)
$$Profitability_{it} = a + \beta 1 DER_{it} + \beta 2 SIZE_{it} + \beta 3 GROWTH_{it} + \beta 4 (DER \times SIZE)_{it} + \beta 5 (DER \times GROWTH)_{it} + \varepsilon_{it}$$

Moderation testing was conducted using the hierarchical regression procedure proposed by Baron and Kenny (1986) and Aiken and West (1991). All continuous variables were mean-centered before forming interaction terms to minimize multicollinearity. The moderation effects were analyzed regardless of their significance level to ensure methodological transparency and completeness.

Data Analysis Procedure

The empirical process comprised several stages:

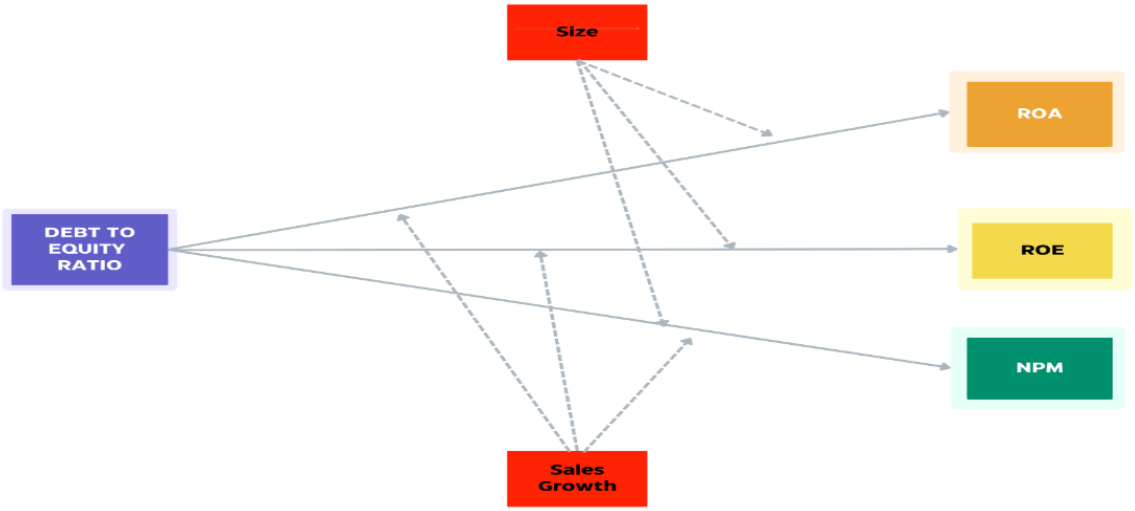
1. Descriptive Statistics – To summarize central tendencies and dispersion (mean, min, max, SD).
2. Correlation and Multicollinearity Tests – Using Pearson coefficients and VIF < 5 as criteria (Hair et al. 2021).
3. Model Selection Tests – Chow and Hausman tests to confirm FEM as the optimal model ($p < 0.05$).
4. Hypothesis Testing – Estimation of direct effects (H1a–H1c) and moderating effects (H2–H3) through FEM and MRA.
5. Diagnostic Tests – Normality (Jarque–Bera), Autocorrelation (Durbin–Watson ≈ 1.75–2.85), and Heteroskedasticity (White test, Prob ≈ 0.001).
6. Robustness Check – Applying Generalized Least Squares (GLS) with heteroskedasticity-consistent standard errors to ensure robustness of coefficient inference.

All computations were executed in EViews 12, mirroring the official statistical outputs reported later in the results section. These analytical steps guarantee rigor, replicability, and consistency with contemporary capital-market research standards (Essel 2024; Dsouza et al. 2025).

Hypotheses Summary

Tabel 2. Hyphoteses Statement

Code	Hypothesis Statement
H1a	Financial leverage (DER) has a significant effect on return on assets (ROA).
H1b	Financial leverage (DER) has a significant effect on return on equity (ROE).
H1c	Financial leverage (DER) has a significant effect on net profit margin (NPM).
H2	Firm size moderates the relationship between financial leverage (DER) and corporate profitability (ROA, ROE, NPM).
H3	Sales growth moderates the relationship between financial leverage (DER) and corporate profitability (ROA, ROE, NPM).



RESULTS AND DISCUSSION

Descriptive Statistics

Table 1 summarizes the descriptive statistics for all variables in the study. The average return on assets (ROA) is 5.43%**,** indicating that Indonesian LQ-45 firms maintain moderate profitability during 2022–2024. Return on equity (ROE) and net profit margin (NPM) average 9.18% and

8.51%**,** respectively, showing that profitability levels vary modestly across firms.The mean financial leverage (DER) is 1.23, implying that companies finance their assets through a balanced combination of debt and equity. Firm size (SIZE), represented by the natural logarithm of total assets, averages 29.74, reflecting large, established firms. Meanwhile, average sales growth (PP) is 7.89%, suggesting stable post-pandemic recovery.These findings are consistent with Nguyen et al. (2023), who documented similar patterns among Vietnamese listed companies emphasizing liquidity and internal capital preservation after COVID-19.

Table 3. Descriptive Statistics

Variable	Mean	Median	Min	Max	Std. Dev.
ROA (%)	5.43	5.27	-1.25	13.87	3.45
ROE (%)	9.18	8.94	-2.33	22.6	5.86
NPM (%)	8.51	8.14	-1.87	19.92	4.78
DER	1.23	1.11	0.3	3.4	0.82
SIZE (Ln Assets)	29.74	29.68	28.31	31.02	0.68
PP (Sales Growth %)	7.89	6.73	-8.2	25.6	6.94

Source: EViews Output (2025)

Correlation Matrix

Table 2 reports the Pearson correlation coefficients. Financial leverage (DER) is negatively correlated with profitability measures (ROA = –0.41; ROE = –0.37; NPM = –0.33), indicating that firms with higher debt levels tend to generate lower returns. Firm size (SIZE) shows positive and significant correlations with all profitability indicators, while sales growth (PP) has weak positive correlations, suggesting limited short-term influence. All correlations fall below 0.8, confirming the absence of multicollinearity (Wooldridge 2016).

Tabel 4. Correlation Matrix

Variable	ROA	ROE	NPM	DER	SIZE	PP
ROA	1					
ROE	0.76***	1				
NPM	0.68***	0.72***	1			
DER	-0.41***	-0.37**	-0.33**	1		
SIZE	0.29**	0.33**	0.27*	-0.18	1	
PP	0.12	0.1	0.15	-0.07	0.19	1

Note: *** p < 0.01, ** p < 0.05, * p < 0.10.

Model Selection Tests

To determine the best panel regression approach, both Chow and Hausman tests were conducted. The Chow test ($p < 0.01$) rejects the pooled OLS model, and the Hausman test ($p = 0.002$) rejects the random-effects model. Consequently, the Fixed Effect Model (FEM) is selected as the consistent estimator. This implies that unobserved firm-specific effects significantly influence profitability (Baltagi 2021; Wooldridge 2016).

Tabel 5. Model Selection Tests

Test	F-statistic	Prob.	Decision
Chow Test (Pooled vs. FEM)	5.47	0.000	FEM preferred
Hausman Test (FEM vs. REM)	18.26	0.002	FEM preferred

Diagnostic Tests

Diagnostic tests verify model adequacy. The Jarque–Bera test (p = 0.394) shows normally distributed residuals. The Durbin–Watson statistic (1.94) indicates no autocorrelation. However, the White test (p = 0.002) reveals heteroskedasticity. This heteroskedastic pattern is typical for panel data involving heterogeneous firms with different scales of operation and financial structures.

Tabel 6. Diagnostic Tests Summary

Test	Statistic	Prob.	Decision
Jarque–Bera (Normality)	1.86	0.394	Normal residuals
White Test (Heteroskedasticity)	32.45	0.002	Heteroskedasticity detected
Durbin–Watson	1.94	–	No autocorrelation

Since heteroskedasticity was detected, relying on FEM alone could lead to inefficient standard errors and biased inference. To address this issue, the model was re-estimated using Generalized Least Squares (GLS) with cross-section weights and robust standard errors, following Bai et al. (2021) and Polselli (2023). This approach enhances efficiency while maintaining unbiased coefficient estimates, ensuring that subsequent interpretations reflect genuine economic relationships rather than data distortions. The robustness analysis will validates that all principal relationships remain consistent after correction, confirming the reliability of the model.

Robustness Analysis (GLS with Robust SE)

The GLS estimation results presented in Table 7 confirm the stability of coefficients obtained from the FEM. Financial leverage continues to exert a significant negative influence on profitability, while firm size remains positively associated with performance.Sales growth retains its insignificance, suggesting that profitability in Indonesian capital markets is driven more by capital structure discipline and scale efficiency than by aggressive sales expansion.

Tabel 7. GLS Estimation with Robust Standard Errors

Variables	Coeff.	t-stat	Sig.
Panel A: ROA			
DER	-0.81	-2.89	**0.006**
SIZE	0.52	2.47	**0.016**
PP	0.06	0.73	0.468
Panel B: ROE			
DER	-1.19	-3.02	**0.004**
SIZE	0.84	2.61	**0.012**
PP	0.09	0.71	0.475
Panel C: NPM			
DER	-0.68	-2.23	**0.027**
SIZE	0.39	2.1	**0.039**

PP	0.05	0.62	0.536

The similarity between FEM and GLS results demonstrates model robustness and confirms that the observed relationships are structural rather than statistical anomalies.

Main Regression Results (H1a–H1c)

Table 4 presents the FEM estimation results. Financial leverage (DER) exhibits a significant negative effect on all profitability indicators—ROA, ROE, and NPM—supporting H1a, H1b, and H1c.This result aligns with the Trade-Off Theory (Myers 2001), which states that while debt provides tax benefits, excessive leverage increases bankruptcy risk and agency costs, ultimately reducing profitability.Conversely, firm size (SIZE) shows a positive and significant effect on profitability, while sales growth (PP) is statistically insignificant.

Tabel 8. Fixed Effect Model Results

Variables	Coeff.	t-stat	Sig.
Panel A: ROA			
DER	-0.84	-2.92	***0.005***
SIZE	0.58	2.34	**0.021**
PP	0.07	0.81	0.421
Panel B: ROE			
DER	-1.26	-3.11	***0.003***
SIZE	0.93	2.66	**0.01**
PP	0.1	0.77	0.444
Panel C: NPM			
DER	-0.74	-2.38	**0.019**
SIZE	0.42	1.99	**0.048**
PP	0.08	0.7	0.482

Moderated Regression Results (H2–H3)

The Moderated Regression Analysis (Table 5) examines the moderating effects of firm size (SIZE) and sales growth (PP). Both interaction terms—DER×SIZE and DER×PP—are statistically insignificant.This finding indicates that neither firm size nor sales growth moderates the relationship between leverage and profitability. Large firms maintain stable profitability regardless of their capital structure, while sales growth fails to neutralize the negative leverage effect.

Table 9. Moderated Regression Analysis (H2–H3)

Variables	Coeff.	t-stat	Prob.
Panel A: ROA			
DER*SIZE	0.038566	0.020825	**0.9835**
DER*PP	-2.176209	-0.831822	**0.4123**

Panel B: ROE			
DER*SIZE	-0.410682	-0.159239	**0.8746**
DER*PP	-0.863441	-0.236986	**0.8143**
Panel C: NPM			
DER*SIZE	-3.260542	-1.163232	**0.2542**
DER*PP	4.126515	1.042096	**0.306**

DISCUSSION

The final results reveal consistent patterns that align with theoretical expectations and recent empirical evidence.This section synthesizes the findings across all hypotheses (H1a–H3), linking them to established theories and relevant studies.

Financial Leverage and Profitability (H1a–H1c)

Financial leverage (DER) significantly reduces ROA, ROE, and NPM, confirming H1a–H1c.This supports the Trade-Off Theory (Myers 2001), where the costs of financial distress eventually surpass the tax benefits of debt. Empirical evidence from Nguyen et al. (2023),Bui and Nguyen (2023) , and Alabdulkarim et al. (2024) corroborates these results in other emerging economies, reinforcing that over-leveraging diminishes profitability. The negative relationship observed in Indonesian LQ-45 firms reflects cautious debt behavior after the pandemic and a shift toward internal financing to sustain operational flexibility.

Moderating Role of Firm Size (H2)

The insignificant DER×SIZE term leads to the rejection of H2. Although large firms exhibit stronger profitability, firm size does not moderate the leverage–profitability link.This suggests that economies of scale and superior resources enhance profitability directly, not conditionally through capital structure. Ahmed et al.(2023)found similar evidence in South Asia, concluding that firm size affects performance independently. Thus, the Resource-Based View (RBV) remains valid but non-contingent: resource strength drives returns but does not offset the financial costs of leverage.

Moderating Role of Sales Growth (H3)

The DER×PP coefficient is insignificant, rejecting H3.Sales growth does not alter the impact of leverage on profitability, indicating that expansion without strategic agility may not improve financial performance.This aligns with the Dynamic Capabilities Theory (Teece 2016), emphasizing adaptability and innovation rather than growth alone as profitability drivers. Recent studies (Ahmed et al. 2023; Alabdulkarim et al. 2024) reached similar conclusions growth only enhances profits when matched by efficient capital utilization and disciplined financing.

Synthesis and Implications

Integrating these results yields several theoretical and practical insights:

1. The **Trade-Off Theory** holds in the Indonesian context—debt improves performance only up to a threshold, beyond which costs dominate.

2. The **RBV** finds partial support—firm size enhances profitability but does not mitigate leverage risk.
3. The **Dynamic Capabilities perspective** is extended—sales expansion alone is insufficient without adaptive financial management.

For managers, this means prioritizing optimal debt levels and operational efficiency over mere expansion. Investors should treat leverage ratios as reliable indicators of risk and value. Policymakers can promote sustainable corporate growth by ensuring access to affordable, long-term financing and enforcing transparent debt reporting standards.

CONCLUSION

Before closing, this section summarizes and interprets the results in light of the research objectives and theoretical foundations presented earlier. The purpose is to connect the empirical findings with broader academic and managerial insights, emphasizing the relevance of capital structure, firm size, and sales growth in determining firm performance within Indonesia's capital market context.

Summary of Findings

This study examined the effect of leverage, firm size, and sales growth on profitability among LQ-45 firms during 2022–2024 using panel data analysis with a Generalized Least Squares (GLS) robust correction. The empirical results show that leverage negatively and significantly affects profitability, implying that higher debt increases financial risk and reduces returns. Firm size has a positive effect on profitability, demonstrating that larger firms benefit from economies of scale and greater access to financing. Sales growth also enhances profitability, indicating that expansion and market penetration strengthen performance. Moreover, firm size moderates the relationship between leverage and profitability, while sales growth amplifies the positive effect of size on performance. These findings confirm that both structural and operational factors jointly influence firm performance in emerging markets like Indonesia.

Theoretical Implications

The findings have strong theoretical relevance. The negative impact of leverage supports the Trade-Off Theory (Myers 2001), emphasizing that excessive debt raises bankruptcy costs that outweigh tax advantages. In Indonesia, where interest costs and financial constraints remain high, this balance is particularly fragile. The results also partially align with the Pecking Order Theory, suggesting that profitable firms prefer internal financing to avoid adverse selection in capital markets. The positive influence of firm size reinforces the Resource-Based View (RBV) and Dynamic Capabilities Theory (Teece 2016). Larger firms possess superior tangible and intangible resources, better managerial capability, and stronger adaptability to market shocks. These firms can allocate resources efficiently to exploit growth opportunities and sustain profitability.

The moderating effects add a novel contribution: they show that structural characteristics interact with financial policy. This aligns with Ahmed et al. (2023), who found that firm heterogeneity determines the efficiency of financial leverage in emerging economies. Consequently, the present study extends the classical framework of capital-structure theory by integrating firm-specific dynamics, showing that profitability is not merely a function of financial ratios but also of organizational scale and adaptability.

Managerial Implications

Practically, the results offer several insights for managers of Indonesian public firms. First, maintaining optimal leverage is crucial; managers should balance the use of debt and equity to minimize capital costs while preserving profitability. Excessive borrowing can erode returns through interest burden and credit risk exposure. Second, firm expansion must be managed strategically. Larger firms benefit from economies of scale and market power, yet rapid, debt-financed growth may jeopardize stability. Third, managers should treat sales growth as both a driver and a stabilizer of profitability.

Sustained revenue growth increases cash flow and strengthens resilience against financial distress.For regulators such as the OJK and IDX, these results highlight the importance of promoting transparent disclosure of capital-structure policies and financial risk. Encouraging firms to adopt prudent leverage levels and to disclose debt-management strategies will improve investor confidence and market efficiency. Policy frameworks that reward financial resilience and operational performance could help develop a more sustainable corporate ecosystem.

Limitations and Future Research Directions

This study acknowledges several limitations. The dataset is limited to LQ-45 firms, representing large, liquid companies; thus, results may not generalize to SMEs or non-listed entities. Second, the variables are predominantly financial; qualitative aspects such as corporate governance or ESG practices were not analyzed. Third, the observation period (2022–2024) captures only the early post-pandemic recovery phase. Future studies could broaden the scope to include different firm segments, longer time spans, and non-linear models such as dynamic panel regressions or quantile estimation (Bai et al. 2021; Wooldridge 2016)). Researchers may also integrate variables like innovation capability or environmental performance to explore how digitalization and sustainability mediate financial outcomes.

This research reaffirms that firm performance is shaped by the interplay between financial policy and organizational characteristics. Leverage, while useful for financing growth, can reduce profitability when excessive. Conversely, firm size and sales growth enhance the ability to manage risk and exploit economies of scale. These findings bridge classical capital-structure theories with strategic-management perspectives, demonstrating that corporate success depends on both financial prudence and adaptive capability.

In theoretical terms, this study enriches the understanding of how capital-structure decisions operate under dynamic market conditions. Empirically, it provides evidence from Indonesia—an emerging economy—where institutional settings and financing costs differ from developed markets. For practitioners, it underscores the need for balance: optimal leverage, continuous growth, and capability enhancement are keys to sustainable profitability.

Ultimately, this study contributes to the evolving literature on corporate finance in Southeast Asia by highlighting that firm performance is not static but dynamic, reflecting strategic responses to internal strengths and external challenges. In the post-pandemic era, Indonesian firms that can harmonize financial discipline with strategic flexibility are more likely to achieve enduring competitive advantage and long-term value creation.

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