





“The effects of capital structure, corporate governance, and intangible assets on the performance of selected Indonesian chemical companies: The role of firm size”

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ARTICLE INFO	Anggono Wijaya, Djoko Setyadi and Rizky Yudaruddin (2025). The effects of capital structure, corporate governance, and intangible assets on the performance of selected Indonesian chemical companies: The role of firm size. <i>Investment Management and Financial Innovations</i> , 22(3), 163-174. doi: 10.21511/imfi.22(3).2025.13
DOI	http://dx.doi.org/10.21511/imfi.22(3).2025.13
RELEASED ON	Tuesday, 12 August 2025
RECEIVED ON	Thursday, 30 January 2025
ACCEPTED ON	Tuesday, 29 July 2025
LICENSE	 This work is licensed under a Creative Commons Attribution 4.0 International License
JOURNAL	"Investment Management and Financial Innovations"
ISSN PRINT	1810-4967
ISSN ONLINE	1812-9358
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

71



NUMBER OF FIGURES

0



NUMBER OF TABLES

3

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BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine
www.businessperspectives.org

Type of the article: Research Article

Received on: 30th of January, 2025

Accepted on: 29th of July, 2025

Published on: 12th of August, 2025

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Conflict of interest statement:

Author(s) reported no conflict of interest

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THE EFFECTS OF CAPITAL STRUCTURE, CORPORATE GOVERNANCE, AND INTANGIBLE ASSETS ON THE PERFORMANCE OF SELECTED INDONESIAN CHEMICAL COMPANIES: THE ROLE OF FIRM SIZE

Abstract

This study investigates the effects of capital structure, corporate governance, and intangible assets on financial performance and firm value in Indonesia's chemical industry, while examining the moderating role of firm size. Focusing on the context of an emerging economy, the research explores how internal corporate factors influence firm outcomes. The study uses a quantitative approach based on secondary data collected from the financial statements of nine chemical companies listed on the Indonesia Stock Exchange, covering 108 firm-year observations from 2012 to 2023. Capital structure, corporate governance, intangible assets, and firm size are treated as independent variables, with financial performance and firm value as dependent variables. The relationships between variables are examined using Structural Equation Modeling to capture both direct and moderating effects. The findings show that capital structure and corporate governance significantly and positively influence both financial performance and firm value, aligning with trade-off and agency theories. Intangible assets significantly affect financial performance but do not directly impact firm value. Firm size has a positive effect on financial performance and moderates the relationships between intangible assets and firm value, as well as between financial performance and firm value. However, firm size does not significantly moderate the effects of capital structure or corporate governance on firm value. These results highlight the importance of internal financial strategies and governance practices in enhancing corporate outcomes in Indonesia. The study provides practical implications for managers and policymakers to strengthen firm value through effective resource allocation, governance, and strategic planning.

Keywords

leverage, accountability, profitability, capitalization

JEL Classification

G32, G34, M41, O16

INTRODUCTION

The chemical industry is a strategic pillar of Indonesia's economy, contributing substantially to GDP, exports, and employment across various sectors. In 2022, the chemical sector accounted for 10.5% of the national GDP and generated approximately USD 40 billion in export revenues, representing 12% of Indonesia's total exports. Its products, including plastics, rubber, fertilizers, and pharmaceuticals, support essential downstream industries such as textiles, electronics, automotive, and agriculture. With a projected average growth rate of 5.5% over the next five years and a recorded cumulative growth of 4.2% in the third quarter of 2024 (BPS, 2024), the sector plays a central role in sustaining Indonesia's industrial development and global trade competitiveness.

Despite its macroeconomic significance, there is a notable paucity of firm-level empirical research focusing on the factors that influence financial performance and firm value in this sector. The evolving complexity of global markets, rising environmental standards, and intensifying industry competition demand that firms adopt sound financial and governance strategies. However, the extent to which internal firm characteristics – specifically capital structure, intangible assets, and corporate governance – drive performance outcomes in the Indonesian chemical sector remains insufficiently understood.

Capital structure decisions are critical, as the balance between debt and equity financing influences risk, profitability, and operational efficiency. Intangible assets, such as brand value, innovation capacity, and proprietary technology, are increasingly recognized as essential drivers of competitive advantage. Moreover, effective corporate governance mechanisms can reduce agency costs, improve decision-making transparency, and align management with shareholder interests. Although each of these elements has been examined separately in prior literature, the interactive and combined effects of these internal variables have received limited attention, particularly in sector-specific contexts.

An additional scientific concern lies in understanding the moderating influence of firm size. Larger firms typically possess superior access to capital markets, institutional support, and organizational infrastructure, which may enhance the efficacy of internal strategies. Yet, how firm size alters the relationships between capital structure, governance, intangible assets, and firm outcomes is still underexplored in empirical studies on emerging markets like Indonesia.

1. LITERATURE REVIEW AND HYPOTHESES

Capital structure refers to the financing mix a firm uses to fund its operations and investments, including short-term debt, long-term debt, and equity. The key goal was to achieve a balance that minimized the cost of capital and maximized the company's value while considering risks and market conditions (Myers, 1984). Effective capital structure management ensured financial flexibility, maintained a competitive market position, and provided a strong risk-return balance. Debt usage, while offering potential for higher returns through leverage, also introduced financial risk (Jensen & Meckling, 1976). Thus, a company had to align its capital structure with its operational conditions and risk tolerance. The trade-off theory suggests that companies strive to achieve an optimal capital structure by balancing the advantages of debt, like tax benefits, with potential downsides, including the risk of financial distress. While debt could reduce tax liabilities and discipline management to use funds efficiently (Modigliani & Miller, 1963; Jensen, 1986), excessive debt increased bankruptcy risk and interest costs, which could harm performance (Kraus & Litzenberger, 1973). Therefore, companies had to carefully balance the benefits of debt with its associated risks. Moreover, high

debt levels could lead to agency conflicts between shareholders and creditors (Myers, 1977), making it essential to consider market and industry conditions in determining the optimal debt ratio.

Empirical research on the link between capital structure and firm performance has produced diverse findings, shaped by variables such as industry dynamics, national context, and economic conditions. For instance, Vătavu (2015) found that companies in Romania that relied more on equity rather than debt performed better, suggesting that in developing countries, excessive debt usage could be disadvantageous in uncertain economic conditions. In contrast, Quang and Xin (2014) found that higher debt ratios in Vietnam negatively affected performance, particularly due to high interest costs and increased bankruptcy risks. On the other hand, Mujahid and Akhtar (2014) in Pakistan discovered that moderate debt usage improved performance, particularly in the textile sector, where debt helped fund expansions and improve competitiveness. Similarly, Le et al. (2021) analyzed non-financial listed firms in Vietnam and found that all debt ratios had a significantly negative relationship with firm performance. Their findings suggest that in developing markets like Vietnam, the benefits of debt, such as tax savings, are outweighed by financial dis-

tress costs. Meanwhile, An optimal capital structure plays a crucial role in enhancing firm performance, as evidenced by findings that market reactions to dividend announcements are influenced by financial resilience during crises (Yudaruiddin & Lesmana, 2025), that ownership structure moderates the relationship between ESG factors and bank performance (Dogan Basar et al., 2025), and that firms in the consumer cyclical sector rely heavily on strategic financial decisions, including capital structure, when facing global trade disruptions (Yudaruiddin et al., 2025).

Numerous studies highlighted the critical relationship between capital structure, corporate governance (GCG), and firm performance across various countries and industries. For instance, Abdullah and Tursoy (2021) confirmed a positive relationship between firm performance and capital structure among non-financial firms listed in Germany. Similarly, Achmad et al. (2023) emphasized the role of government support in helping small and medium-sized enterprises (SMEs) manage debt. In Indonesia, Afiani and Dan Bernawati (2019) demonstrated that good corporate governance positively impacted firm value, with financial performance acting as a mediating variable, while Amalia et al. (2019) discovered that firm value was positively influenced by financial performance, but capital structure did not. In line with this, Buallay and Al-Ajmi (2020) highlighted the importance of audit committee attributes in supporting good corporate governance practices. Meanwhile, Cheng and Tzeng (2011) argued that leverage increased firm value, especially when the firm's financial quality was strong, and De Jong et al. (2008) observed that country-specific factors indirectly influenced capital structure decisions. Furthermore, a study by Defung et al. (2024) suggested that leverage impacted bank stability, and Deviyanti et al. (2023) noted that economic crises tended to increase capital structure levels. Several studies highlighted the benefits of larger board sizes, such as reduced debt costs due to improved oversight (Anderson et al., 2004). Harymawan et al. (2020) argued that regular board meetings correlated with better firm performance, suggesting that frequent strategic discussions enhanced decision-making. Pamungkas et al. (2023) supported this view, noting that good corporate governance practices enhanced firm value and investor confi-

dence (Robiyanto et al., 2019). In addition, Lestari et al. (2022) emphasized that financial development and corruption levels significantly shape investment dynamics in developing countries, implying the broader institutional context may influence corporate financing decisions. Similarly, Ulfah et al. (2021) found that ownership composition affects intellectual capital disclosure in Indonesian firms, underlining the role of internal governance structures in determining transparency and performance outcomes.

International studies also shed light on how capital structure correlated with firm performance in different regions. Dinh and Pham (2020) and Le and Phan (2017) found that financial leverage and asset ratios were positively related to firm performance in Vietnam, while Gendron and Bedard (2006) emphasized the role of corporate governance in influencing firm value. Hermanto et al. (2021) noted that both corporate governance and financial performance positively affected firm value in Indonesia, but intellectual capital did not. In contrast, research on SMEs by Joshua (2007) and Tian and Zeitun (2007) found a negative correlation between debt and company performance. Khan and Qasem (2024) disproved the theoretical assumptions of Modigliani and Miller's debt irrelevance theory by concentrating on non-financial enterprises in GCC economies. Meanwhile, Sheikh and Wang (2013) argued that overleveraging, often resulting from less developed capital markets, might compromise managerial efficiency. Sedeaq (2016) in Turkey found that a debt-dominated capital structure had a negative impact on return on assets (ROA). Finally, Thenmozhi and Sasidharan (2020) found that corporate governance added value to state-owned enterprises (SOEs) in India and China, with independent directors acting as better supervisors. Ramadhan et al. (2022), studying companies registered in Indonesia, found that corporate governance influenced firm value in the non-financial sector.

In the Indonesian context, Ferriswara et al. (2022) showed that while corporate governance and capital structure did not directly affect firm value, corporate governance significantly influenced financial performance. Meanwhile, Riaz et al. (2022) discovered a favorable association between financial leverage and company performance across

the G7 countries, supporting the trade-off theory. Putri and Willim (2024) revealed that financial flexibility and asset composition favorably affect capital structure in Indonesian consumer products enterprises, while earning volatility does not. Lin and Chang (2011) added that the proper management of capital structure, including intangible and tangible assets, could increase firm value. Additionally, Mujiatun et al. (2021) highlighted that firms with large fixed asset positions could more easily procure debt, which in turn boosted capital structure. Finally, various scholars, including Paminto et al. (2023) and Irwansyah et al. (2023), noted that debt impacted firms differently during periods of crisis, with financial flexibility and leverage playing key roles in shaping capital structure decisions.

Studies across developed and developing countries yielded different insights. Banerjee and De (2015) found that capital decisions in India had a greater impact on a company's profitability compared to developed markets, highlighting the high reliance on debt and economic risks in emerging markets. Sivalingam and Kengatharan (2018) found a negative relationship between debt-to-assets and profit in Sri Lanka, further emphasizing the risk of high debt levels in uncertain economies. Similarly, Sedeaq (2016) and Sakr and Bedeir (2019) noted that in countries with high economic risks, debt usage exacerbated performance decline due to higher vulnerability to bankruptcy risks and interest burdens. The COVID-19 pandemic also highlighted the importance of debt in supporting small businesses. Lestari et al. (2021) showed that debt helped businesses survive by providing liquidity during income declines. Musviyanti et al. (2022) found that government policies supporting low-interest loans or subsidies increased debt levels among firms in developing countries, which helped businesses cope with the crisis and maintain value. This was also supported by the study by Nenu et al. (2018), which showed that different debt structures significantly affected firm performance based on company size and stock price volatility. Meanwhile, Ochego et al. (2019) emphasized that corporate governance influenced financial performance and business value in Kenya. Sadiq et al. (2023) conducted research that demonstrated a U-shaped relationship between debt and Tobin's Q, with income per capita serving as a

mediator. In the UK market, Ramadhan and Chen (2012) indicated that firm leverage mediated the relationship between capital structure and firm financial performance.

Regarding the debt ratio and firm value, Lin and Chang (2011) identified a threshold effect, where firm value increased with higher debt ratios up to a point, beyond which it declined due to increased bankruptcy risk and interest costs. Riaz et al. (2022) confirmed that companies with improved financial conditions were more likely to employ debt effectively for investment and expansion. Similarly, Ramli et al. (2019) in Malaysia observed a positive relationship between leverage and performance, though this relationship varied across different countries due to differing market conditions, government policies, and economic risks. Ramadhan and Chen (2012) highlighted that corporate leverage in the UK could improve performance by reducing capital costs but warned that excessive leverage risked long-term financial burdens. Stulz (1990) suggested that debt could improve performance through tax shields and managerial discipline, but also increase financial costs and exposure to market fluctuations. Margaritis and Psillaki (2010) found that leverage positively affected performance in French manufacturing firms but only up to moderate levels, beyond which the relationship turned negative, indicating that excessive debt undermined operational efficiency. This underscored the importance of careful management to avoid negative financial impacts.

Research on corporate governance also emphasized its role in enhancing firm performance. Ferriswara et al. (2022) argued that while capital structure impacted firm value, corporate governance played a crucial role in operational efficiency, which ultimately drove financial performance. Mandacı and Gumus (2010) found that GCG influenced financial performance in Turkey. Arayssi and Jizi (2023) observed that royal family board members might influence ESG transparency, which could affect long-term corporate efficiency. Adila and Arifin (2021) discovered that independent commissioners did not have a substantial impact on performance, but the board of directors had a positive impact on firm value. Similarly, Ramadhan et al. (2022) demonstrated that the value of a firm was positively influenced by insti-

tutional ownership, the frequency of meetings, and the size of the board, while managerial ownership could lead to conflicts of interest. Other studies, such as those by Suhartini et al. (2024), confirmed that good corporate governance improved financial health, leading to higher firm value. Thanh et al. (2024) noted that governance mechanisms positively affected firm value in Vietnam, with COVID-19 playing a moderating role, emphasizing the need for adaptability in governance during external challenges. A study by Wahyuni et al. (2024) showed that leverage impacted fintech during the COVID-19 pandemic, and Widuri et al. (2017) found that corporate governance and corporate social responsibility could mediate the relationship between firm performance and firm value.

The objective of this study is to examine the influence of capital structure, corporate governance, and intangible assets on the financial performance and firm value of chemical sector companies listed on IDX (Indonesia Stock Exchange). Additionally, this study aims to explore the moderating role of firm size in the relationships between capital structure, corporate governance, intangible assets, and firm value. To attain this goal, the research evaluates the subsequent hypotheses:

- H1: Capital structure has a significant impact on companies' financial performance.*
- H2: Capital structure significantly influences firm value.*
- H3: Corporate governance plays a crucial role in shaping financial performance.*
- H4: Corporate governance significantly affects firm value.*
- H5: Intangible assets have a notable influence on companies' financial performance.*
- H6: Intangible assets significantly impact firm value.*
- H7: Firm size significantly affects firm value.*
- H8: Financial performance has a significant effect on firm value.*

H9: Firm size moderates the relationship between capital structure and firm value.

H10: Firm size moderates the relationship between corporate governance and firm value.

H11: Firm size moderates the relationship between intangible assets and firm value.

H12: Firm size moderates the relationship between financial performance and firm value.

2. METHOD

This study utilizes secondary data obtained from the Indonesia Stock Exchange, including financial statements, annual reports, and stock prices for the period 2012–2023, encompassing 12 years. The sample consists of nine chemical sector companies, resulting in a total of 108 observations. Data were sourced from the official websites of the Indonesia Stock Exchange (www.idx.com) and the Jakarta Stock Exchange Composite Index (JKSE), representing the Indonesia Stock Exchange (IDX), and subsequently collected based on the established sample criteria.

The data collection process aligns with the research period of 2012–2023 and ensures that all selected companies meet the inclusion criteria. These criteria include chemical sector companies listed on the Indonesia Stock Exchange with uninterrupted and complete (audited) financial statement data throughout the research period. The collected data are used to analyze the following variables: Capital Structure (X1), Profitability (X2), Good Corporate Governance (X3), and Firm size (X4) as independent variables, along with Financial Performance (Y1) and Firm Value (Y2) as dependent variables.

The analysis employs Structural Equation Modeling (SEM) to examine the relationships among these variables. SEM is a powerful statistical technique used to evaluate complex relationships between latent variables (unobserved constructs) and observed indicators simultaneously. SEM integrates regression analysis, factor analysis, and path analysis into a single framework, making it particularly suitable for testing theoretical

models with multiple dependent and independent variables (Hair et al., 2019). The model consists of two primary components: the outer model, which evaluates the connection between latent constructs and their observed indicators (measurement model), and the inner model, which examines the structural relationships among latent variables. Validity and reliability are critical in SEM to ensure that the constructs are measured accurately and consistently. Validity is assessed through Convergent Validity (Average Variance Extracted or AVE, where values should exceed 0.5) and Discriminant Validity (using criteria such as the Fornell-Larcker Criterion or cross-loadings). Reliability is evaluated using Composite Reliability (CR) or Cronbach's Alpha, with acceptable thresholds generally exceeding 0.7 (Hair et al., 2019; Fornell & Larcker, 1981; Hardani et al., 2025; Surahman et al., 2023).

Another key component of SEM is the R-Square (R^2), which measures the percentage of variation in the dependent variable accounted for by the independent variables within the structural framework. A higher R^2 indicates a model with more explanatory strength. The evaluation of the outer model focuses on ensuring the validity and reliability of the measurement items, while the inner model assesses the path coefficients to determine the strength and significance of relationships between latent variables. Additionally, the inner model incorporates predictive relevance tests, such as Q^2 (Stone-Geisser Criterion), to evaluate the model's ability to predict outcomes. SEM also allows researchers to analyze direct, indirect, and moderating effects, providing comprehensive insights into the relationships among variables (Hair et al., 2019). This approach is widely recognized for its robustness and flexibility, making it a popu-

lar choice for empirical research in social sciences, business, and economics.

3. RESULT

This study employs latent variables related to financial management, measured using nominal values of financial concepts rather than through respondents' perceptions via a questionnaire. As a result, the validity and reliability of the research instrument are not tested using traditional metrics such as the corrected total item correlation coefficient or Cronbach's alpha. Instead, the contribution of an indicator to a latent variable is determined through its significance level (p-value) and the sign of its coefficient (positive or negative). To test the hypotheses, this study utilizes Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach, analyzed using SmartPLS 4.0 software. A total of 12 hypotheses are tested, encompassing direct, indirect, and moderating effects.

Based on Table 2, there are three significant indirect influences. First, the indirect effect of Capital Structure (X1) on Company Value (Y2) through Financial Performance (Y1) shows a coefficient of 0.191 with a p-value of 0.045, indicating that Financial Performance mediates the relationship between Capital Structure and Company Value. Second, the indirect effect of Corporate Governance (X2) on Company Value through Financial Performance yields a coefficient of 0.147 with a p-value of 0.037, confirming the mediating role of Financial Performance in this relationship. Third, the indirect effect of Intangible Assets (X3) on Company Value through Financial Performance records a coefficient of 0.202 with a

Table 1. Results of direct effect hypotheses testing

Hypothesis	Influence Between Variables			Path Coefficient	p-value	Description
	Exogen Variable	→	Endogen Variable			
H1	Capital Structure (X1)	→	Financial Performance (Y1)	0.430	0.007	Significant
H2	Capital Structure (X1)	→	Firm Value (Y2)	0.025	0.884	Not Significant
H3	Good Corporate Governance (X2)	→	Financial Performance (Y1)	0.331	0.017	Significant
H4	Good Corporate Governance (X2)	→	Firm Value (Y2)	0.272	0.023	Significant
H5	Intangible Assets (X3)	→	Financial Performance (Y1)	0.456	0.024	Significant
H6	Intangible Assets (X3)	→	Firm Value (Y2)	0.115	0.397	Not Significant
H7	Firm Size (X4)	→	Firm Value (Y2)	0.425	0.003	Significant
H8	Financial Performance (Y1)	→	Firm Value (Y2)	0.443	0.026	Significant

Table 2. Results of indirect effect

Exogenous	Influence Between Variables			Path Coefficient	p-value	Description	
	→	Endogenous Intervening	→				Pure Endogenous
Capital Structure (X1)	→	Financial Performance (Y1)	→	Corporate Value (Y2)	0.191	0.045	Significant
Good Corporate Governance (X2)	→	Financial Performance (Y1)	→	Corporate Value (Y2)	0.147	0.037	Significant
Intangible Asset (X3)	→	Financial Performance (Y1)	→	Corporate Value (Y2)	0.202	0.030	Significant

p-value of 0.030, further supporting the mediating role of Financial Performance between Intangible Assets and Company Value

The results reveal significant direct effects for several hypotheses. The relationship between capital structure (X1) and financial performance (Y1) is positive and significant (path coefficient = 0.430, p-value = 0.007), supporting Hypothesis 1. However, the relationship between capital structure (X1) and company value (Y2) is not significant (path coefficient = 0.025, p-value = 0.884), leading to the rejection of Hypothesis 2. Good Corporate Governance (X2) positively influences both financial performance (Y1) and company value (Y2) (path coefficients = 0.331, p-value = 0.017; 0.272, p-value = 0.023), confirming Hypotheses 3 and 4. Similarly, intangible assets (X3) significantly enhance financial performance (Y1) (path coefficient = 0.456, p-value = 0.024), supporting Hypothesis 5, but their effect on firm value (Y2) is insignificant (path coefficient = 0.115, p-value = 0.397), rejecting Hypothesis 6. Firm size (X4) positively impacts financial performance (Y1) (path coefficient = 0.425, p-value = 0.003), validating Hypothesis 7. Finally, financial performance (Y1) positively influences firm value (Y2) (path coefficient = 0.443, p-value = 0.026), supporting Hypothesis 8. As reported in Table 1, the indirect effects further elucidate the relationships. Capital structure (X1), good corpo-

rate governance (X2), and intangible assets (X3) positively influence firm value (Y2) through financial performance (Y1). These findings indicate that financial performance acts as a significant mediator in these relationships, strengthening the overall impact of these predictors on firm value.

In Table 3, moderating effects are also investigated, particularly the role of company size (X4). The analysis reveals that firm size does not moderate the effects of capital structure (X1) or corporate governance (X2) on firm value (Y2) (path coefficients = -0.261, 0.075; p-values = 0.071 and 0.559, respectively), leading to the rejection of Hypotheses 9 and 10. However, firm size weakens the effect of intangible assets (X3) on firm value (Y2) (path coefficient = -0.362, p-value = 0.026), confirming Hypothesis 11. In contrast, firm size strengthens the effect of financial performance (Y1) on firm value (Y2) (path coefficient = 0.516, p-value = 0.015), validating Hypothesis 12. These findings highlight the nuanced role of firm size in moderating these relationships. Overall, the study tests 12 hypotheses, of which 8 are supported while 4 are not significant. The results underscore the importance of corporate financial and governance factors in shaping firm value and financial performance. Additionally, the moderating influence of firm size provides critical insights into the dynamics of financial management.

Table 3. Results of hypotheses testing of the influence of moderating variables

Hypothesis	Influence Between Variables			Path Coefficient	p-value	Description
	Exogen Variable	→	Endogen Variable			
H9	Firm Size (X4) Capital Structure (X1)	→	Firm Value (Y2)	-0.261	0.064	Not Moderation
H10	Firm Size (X4) Good Corporate Governance (X2)	→	Firm Value (Y2)	0.075	0.581	Not Moderation
H11	Firm Size (X4) Intangible Assets (X3)	→	Firm Value (Y2)	-0.362	0.025	Moderation Weakens (Path Coef). X3 → Y2 = 0.115)
H12	Firm Size (X4) Financial Performance (Y1)	→	Firm Value (Y2)	0.516	0.015	Moderating Strengthening (Y1 path coef). Y1 → Y2 = 0.443)

4. DISCUSSION

This study reveals several key relationships between firm characteristics, financial performance, and firm value, offering important theoretical and practical insights. First, the significant and positive relationship between capital structure and financial performance suggests that the effective use of debt can improve a firm's operational efficiency. This finding supports the trade-off theory (Modigliani & Miller, 1958; Myers, 1984), which posits that firms balance the tax advantages of debt against the costs of financial distress. Consistent with Jensen (1986), debt also appears to act as a disciplinary mechanism for management. These results align with those of Quang and Xin (2014) and Mujahid and Akhtar (2014), who found that capital structure positively impacts performance in emerging markets. However, in contrast to the predominant emphasis in earlier works, the present analysis also confirms the downside of excessive leverage, which increases the risk of financial distress, resonating with the argument of Kraus and Litzenberger (1973). This duality emphasizes the need for a carefully balanced capital structure, a nuance that has been less explored in prior empirical studies focusing predominantly on the benefits of debt.

Second, good corporate governance (GCG) shows a significant positive effect on both financial performance and firm value. This outcome supports agency theory (Jensen & Meckling, 1976), which asserts that GCG reduces conflicts between managers and shareholders. Compared to the findings of Lin and Chang (2011), which emphasized GCG's influence on firm value in developed economies, the current evidence highlights the critical role of GCG in developing countries. Furthermore, while previous studies (e.g., Musviyanti et al., 2022; Lestari et al., 2021) confirmed the importance of governance structures for investor perception, the results here indicate that governance effectiveness also translates into superior financial outcomes.

Intangible assets are found to significantly influence financial performance but not firm value. This contrast is noteworthy. Although prior studies (e.g., Sakr & Bedeir, 2019; Ramli et al.,

2019) highlight the strategic importance of intangible assets, especially in innovation-intensive industries, the present findings suggest that such assets do not always translate into immediate or observable market value. This discrepancy may stem from challenges in valuation, market perception, or sector-specific dynamics. The results echo concerns raised by Sedeaq (2016), who argued that intangible assets often lack transparency and are difficult for markets to assess consistently, particularly in less mature financial systems.

Firm size is positively associated with financial performance, supporting the arguments of Ferriswara et al. (2022) and Arayssi and Jizi (2023) regarding the benefits of economies of scale and broader access to resources. However, the analysis further reveals that firm size does not significantly moderate the relationship between capital structure or corporate governance and firm value, partially consistent with Harymawan et al. (2020), who suggested that the influence of firm size may vary depending on the industry context. Notably, firm size is found to moderate the relationship between intangible assets and firm value, indicating that larger firms rely less on intangible resources, likely due to their greater physical infrastructure and organizational capabilities. This insight adds depth to existing literature, where the moderating role of firm size has received limited attention.

Lastly, financial performance exhibits a positive and significant effect on firm value, reinforcing the view that strong operational outcomes enhance investor confidence and market valuation (Stulz, 1990; Anderson et al., 2004). This finding is consistent with the work of Riaz et al. (2022), who emphasized profitability as a key determinant of firm value. In addition, firm size appears to strengthen this relationship, indicating that larger firms are more effective in translating financial performance into higher market valuations due to enhanced visibility, easier access to capital markets, and greater investor trust. This suggests that firm size amplifies the signaling effect of financial performance on firm value, offering a nuanced contribution to literature.

CONCLUSION

The purpose of this study is to examine the influence of corporate governance, capital structure, and intangible assets on financial performance and firm value, as well as to investigate the moderating role of firm size in these relationships. This study shows that corporate governance, capital structure, and intangible assets significantly impact the financial performance and firm value of companies. This study also reveals that firm size plays a moderating role in the relationships between capital structure, corporate governance, intangible assets, and firm value. These findings highlight the importance of managing an optimal capital structure, implementing good corporate governance practices, and leveraging intangible assets to improve financial performance, ultimately contributing to the enhancement of firm value. Nevertheless, the relationship between corporate governance and capital structure on firm value is not substantially moderated by firm size, indicating that these factors may vary based on the industry context and company strategy.

Policy recommendations from this study suggest that companies should focus on utilizing intangible assets, improving corporate governance practices, and maintaining an optimal capital structure to boost their financial performance. Additionally, larger firms can optimize their physical and human resources to reduce reliance on intangible assets in determining firm value. The study is also constrained by a small sample size, which is restricted to nine companies in the chemical sector. Therefore, it is recommended that future research should be conducted to include other sectors and a longer period. Further studies could also explore other variables that may moderate the relationship between financial performance and firm value, such as product innovation and broader marketing strategies.

AUTHOR CONTRIBUTIONS

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Formal analysis: Djoko Setyadi, Anggono Wijaya, Rizky Yudaruddin.

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