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Managerial Ownership as a Moderator of Financial Performance and Capital Structure in Enhancing Firm Value

Muhammad Marshal Attarik[1,*], Diana Puspitasari[2], Amalia Nur Chasanah[3], Pradana Jati Kusuma[4]

[1]Department of Management, Faculty of Economics and Business, Universitas Dian Nuswantoro, Semarang 50131, Indonesia
[2]Department of Management, Faculty of Economics and Business, Universitas Dian Nuswantoro, Semarang 50131, Indonesia
[3]Department of Management, Faculty of Economics and Business, Universitas Dian Nuswantoro, Semarang 50131, Indonesia
[4]Department of Management, Faculty of Economics and Business, Universitas Dian Nuswantoro, Semarang 50131, Indonesia

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Correspondence:
Muhammad Marshal Attarik

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ABSTRACT

Purpose—This study investigates the joint and conditional effects of financial performance and capital structure on firm value, while critically examining the moderating role of managerial ownership within an emerging market context.

Design/methodology/approach—Grounded in Agency Theory and Signaling Theory, this study employs a quantitative panel data approach to examine the interplay between profitability, leverage, and firm valuation. Financial performance is proxied by Return on Assets (ROA), capital structure by Debt to Equity Ratio (DER), and firm value by Price to Book Value (PBV). Advanced panel regression techniques are utilized to capture both direct and moderating effects.

Findings—The findings demonstrate that financial performance exerts a strong and statistically significant positive influence on firm value, underscoring its role as a credible signal of managerial efficiency and future growth prospects. In contrast, capital structure shows a negative yet statistically insignificant relationship, indicating that leverage is not consistently priced by the market. Notably, managerial ownership fails to moderate these relationships, suggesting that ownership alignment alone is insufficient to effectively resolve agency conflicts or enhance valuation outcomes.

Originality/value—This study challenges the conventional governance assumption that managerial ownership universally strengthens firm value. By revealing its limited moderating role, the study provides a refined perspective on the boundaries of agency alignment mechanisms and highlights the contextual limitations of internal governance structures in shaping market perceptions.

Implications—The results emphasize the importance of strengthening fundamental performance indicators and credible signaling mechanisms over reliance on ownership structures. Firms and policymakers should prioritize transparency, efficiency, and broader governance quality to sustain firm value and investor confidence.

1. Introduction

Valuation of corporations is a challenging area of corporate finance because it reflects market assumptions about performance, risk, and growth prospects. To maintain operational efficiency, companies must implement effective governance structures. In competitive sectors, a financial approach to managing governance structures can also be a prerequisite for maintaining investor confidence. The manufacturing sector, particularly in the food and beverage industry, is directly affected by this issue. The industry is growing in line with rising consumer demand but is also facing structural barriers, including input cost volatility, supply chain disruptions, and intensifying competition. Research undertaken to date has concentrated on the high sensitivity of firm value to internal performance signals and external market conditions in competitive, resource-intensive industries (Gardijan and Lukač, 2018; Connelly et al., 2011). This forces firms to respond continuously by adjusting their financial and strategic decisions to remain viable competitors.

These dynamics create ambiguity about how the market assesses a company's performance and long-term prospects. Despite underlying growth, the sector faces an intriguing paradox: corporate value continues to yield declining returns, signaling sustained investor skepticism. A company's corporate value is reflected in how investors view it relative to its actual assets, as measured by the price-to-book value (PBV) proxy. A decline in PBV is indicative of reduced optimism, even as the company continues its day-to-day operations. The phenomenon aligns with signaling theory, in which market participants, under conditions of uncertainty, interpret a company's financial and strategic signals differently (e.g., discounting a company's valuation when perceived risk exceeds expected returns) (Ross, 1977; Derun and Mysaka, 2018). In addition, microdata suggests

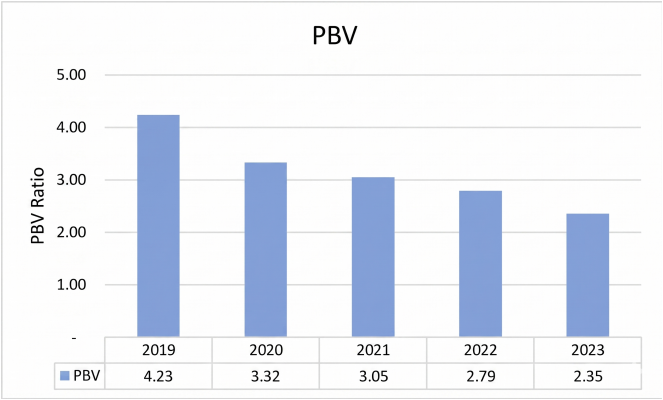

Fig. 1. Average PBV Trend in Food and Beverage Manufacturing Sector

that periods of economic decline and investor sentiment can weaken the relationship between a company's performance and its market valuation, particularly in emerging markets where information asymmetry remains high (Jihadi et al., 2021; Ghalke et al., 2023).

As demonstrated in Figure 1, firm value exhibits a consistent declining trend over the observed period, indicating that external market perceptions remain relatively unstable. This downward trajectory reflects a potential disconnect between internal operational performance and external valuation, in which improvements in efficiency and profitability are not necessarily reflected in higher market confidence. Such conditions suggest that investors may incorporate broader risk considerations, including macroeconomic uncertainty and industry-specific volatility, into their evaluations of firm prospects.

This phenomenon highlights a critical issue in corporate finance: firm value is shaped not only by financial performance but also by how effectively that performance is communicated and perceived in the market. Therefore, identifying the underlying determinants of firm value becomes essential, particularly in sectors characterized by dynamic competition and shifting investor sentiment. The observed trend reinforces the need to examine both financial and governance-related factors in explaining variations in firm value.

From a theoretical perspective, financial performance is an important signal for investors. Signaling theory suggests that if a product or service is profitable, it indicates good management and that prices will continue to rise, thereby increasing a company's value. Return on Assets (ROA) is a widely used metric that indicates how efficiently a company utilizes its assets to generate profits. Empirical studies demonstrate a positive correlation between higher profitability levels and both investor confidence and valuation (Derun and Mysaka, 2018; Saragih and Forever, 2024). It has been suggested, however, that increased profitability does not always result in a proportional increase in firm value, as evidenced by empirical inconsistencies. This suggests that the signaling nature of financial performance may depend on other structural or governance factors.

In addition to profitability, capital structure is another key factor influencing firm value. Decisions regarding financing, particularly the balance between debt and equity, directly impact risk and return expectations. The leveraging effect can be a beneficial tool for firms looking to expand their operations. However, it is important to note that excessive debt levels can increase financial risk, potentially impacting investor confidence. As outlined in the studies (Putri and As'ari, 2025; Ghalke et al., 2023), capital structure has been found to affect firm value positively. However, other studies have indicated a negative impact. This inconsistency indicates that the leverage effect is context-dependent, varying across industries and with market conditions.

When the subjectivity of capital structure is analyzed through the framework of agency theory, the relationship between financial performance and capital structure becomes highly intricate. In situations where managers have superior inside knowledge compared to shareholders due to information asymmetry, financial decisions may be influenced by this imbalance in knowledge (Jensen and Meckling, 1976). In the business world, the concept of management ownership is often regarded as an integral part of internal governance, with the primary objectives of aligning incentives and mitigating agency costs. It is reasonable to expect that by retaining shares, managers will be prompted to consider the impact of their strategic decisions on stock prices. This will encourage them to adopt a more prudent financial management and value-creating approach (Morck et al., 1988; McConnell and Servaes, 1990). It is anticipated that this alignment will positively affect the impact of financial performance and capital structure decisions on firm value, in line with theoretical expectations. However, the available evidence regarding its relative effectiveness as a governance mechanism from the perspective of managerial discretion is inconclusive. While several studies have documented its positive moderating role in strengthening the relationship between financial performance and firm value (Bian et al., 2023; Yue et al., 2026; Haldar and Sethi, 2022) for examples in this regard, other studies suggest that there are mixed or even negative effects, which can stem from strengthened management positions, ownership concentration, and issues related to weak institutional frameworks (Haldar and Sethi, 2022; Sun et al., 2025). In emerging markets, the role of managerial ownership is highly context-dependent due to the less developed nature of governance systems and weaker investor protection mechanisms. It should be noted that managerial ownership may not always act consistently as an alignment mechanism. This has particular implications in highly innovative, market-sensitive sectors, where externalities can significantly affect valuation dynamics (Naseem et al., 2024).

As illustrated in Figure 2, financial performance, as proxied by Return on Assets (ROA), demonstrates a fluctuating pattern throughout the observed period. This instability indicates that firms experience varying profitability levels, reflecting the dynamic nature of operational efficiency and external economic pressures. The decline during earlier periods, followed by a gradual recovery, suggests that firms are still stabilizing performance after significant disruptions.

These fluctuations imply that financial performance signals may not always be consistently interpreted by investors, particularly in uncertain economic conditions. As a result, the ability of profitability to influence firm value becomes contingent upon the credibility and stability of these signals. This reinforces the importance of examining additional factors, such as capital structure and governance mechanisms, to understand better how financial performance translates into market valuation.

This study aims to address this gap by analyzing the combined effects of financial performance and capital structure on firm

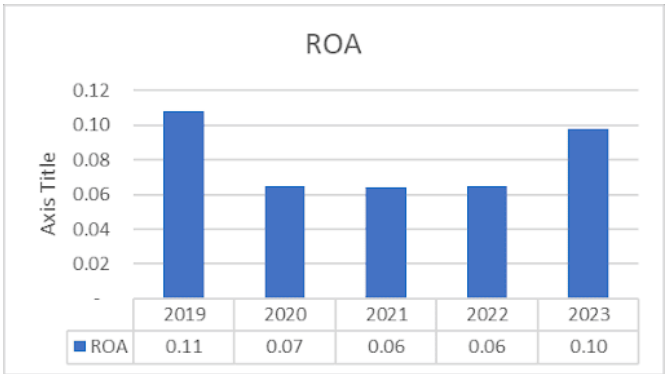

Fig. 2. Average ROA Trend in Food and Beverage Manufacturing Sector

value, while accounting for managerial equity. The study's innovation lies in its synthesis of insights from signaling and agency theories. It employs a framework that examines direct relationships, conditions their impact, and demonstrates integrated effects. Research in this field to date has focused on financial performance and capital structure as separate entities. However, this paper explores boundary conditions that govern market perceptions and interpretations. The introduction of managerial ownership as a factor that other factors can influence allows this study to improve our understanding of how governance mechanisms can influence the effectiveness of financial signals (Connelly et al., 2011; Haldar and Sethi, 2022).

This study makes several valuable contributions to the existing literature in three main ways. Firstly, it provides empirical evidence regarding the interaction between profitability and leverage on firm value in a competitive manufacturing industry. Secondly, it contributes to corporate governance research by providing a context-dependent assessment of the moderating effects of managerial ownership (i.e., alignment mechanisms). The third aspect of this research is that it distinguishes between internal performance signals and external market responses, thereby providing a more comprehensive view of firm value creation in emerging market contexts characterized by greater information asymmetry and investor attention (Naseem et al., 2024). The remainder of this paper is structured in the following way. Section 2 presents the theoretical foundation and the development of the hypothesis. Please refer to Section 3 for details of the research methodology. Section 4 discusses the empirical findings, and Section 5 concludes with implications and directions for future research.

2. Literature Review

2.1 Theoretical Foundations

This study is grounded in agency theory and signaling theory, which provide complementary frameworks for explaining firm value formation. Agency theory posits that conflicts of interest arise from the separation of ownership and control, in which managers may pursue personal objectives that deviate from shareholders' interests (Jensen and Meckling, 1976). This divergence is exacerbated by information asymmetry, leading to inefficiencies and potential value destruction. To mitigate these issues, internal governance mechanisms such as managerial ownership are introduced to align incentives and reduce agency costs. By holding equity stakes, managers are expected to internalize the financial consequences of their decisions, thereby encouraging value-maximizing behavior and improving firm performance (Morck et al., 1988; McConnell and Servaes, 1990).

In parallel, signaling theory explains how firms communicate their internal quality to external stakeholders through observable financial and strategic decisions (Ross, 1977; Connelly et al., 2011). Financial performance and capital structure serve as key signals that shape investor perception and market valuation. High profitability signals operational efficiency and growth potential, while financing decisions reflect management expectations regarding future cash flows and risk. Recent literature further emphasizes that governance and ownership structures may strengthen the credibility of corporate signals, particularly in emerging market contexts where information asymmetry remains relatively high (Ghalke et al., 2023; Bian et al., 2023; Yue et al., 2026).

2.2 Financial Performance and Firm Value

Financial performance is widely recognized as a fundamental determinant of firm value because it reflects a firm's ability to generate returns from its resources and sustain competitive advantage. From a signaling perspective, strong financial performance conveys credible information regarding managerial competence, operational efficiency, and earnings sustainability. Return on Assets (ROA) is commonly used as a key indicator of how efficiently firms use their assets to generate profits. Empirical evidence consistently shows that higher profitability enhances investor confidence and increases firm valuation (Derun and Mysaka, 2018; Saragih and Forever, 2024; Jihadi et al., 2021).

However, the relationship between financial performance and firm value is not always linear. Market valuation depends not only on profitability but also on how investors interpret the credibility and sustainability of financial signals. Under conditions of economic uncertainty, weak governance, or limited transparency, investors may discount profitability due to perceived risks. Prior studies suggest that the positive effect of financial performance becomes stronger when supported by transparent reporting, effective governance, and stable earnings quality (Wu et al., 2025; Odriozola et al., 2024). Therefore, financial performance remains a key driver of firm value, although its effectiveness depends on contextual and governance-related factors.

H1: Financial performance has a positive effect on firm value.

2.3 Capital Structure and Firm Value

Capital structure is a critical financial decision that influences firm value by affecting risk and return. According to trade-off theory, firms aim to determine an optimal balance between debt and equity to maximize value by leveraging tax benefits while minimizing financial distress costs (Modigliani and Miller, 1963). From a signaling perspective, leverage may indicate management's confidence in future cash flows, thereby enhancing firm value (Ross, 1977). However, excessive leverage may signal financial vulnerability, leading to negative investor responses.

Empirical findings on the relationship between capital structure and firm value remain mixed. Some studies indicate that leverage may improve firm value through financial discipline

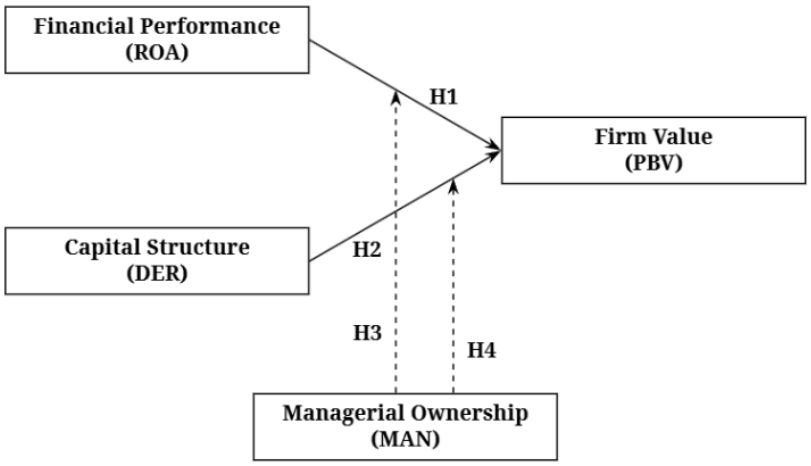

Fig. 3. Research Model Framework

and efficient resource allocation, while others suggest that excessive debt can weaken firm performance and increase financial risk (H. T. Nguyen and A. H. Nguyen, 2022; D. H. Nguyen and Truong, 2026). Recent studies further emphasize that the impact of capital structure is context-dependent and influenced by firm characteristics, governance quality, and macroeconomic conditions (Sun et al., 2025; Khemiri, 2025). Therefore, capital structure decisions must be carefully managed to balance risk and value creation.

H2: Capital structure affects firm value.

2.4 Moderating Role of Managerial Ownership

Managerial ownership is an important governance mechanism that aims to align the interests of managers and shareholders. Based on agency theory, increasing managerial ownership reduces agency conflicts by linking managerial wealth to firm performance (Jensen and Meckling, 1976). When managers hold equity stakes, they are more likely to make decisions that enhance firm value and improve organizational performance (Morck et al., 1988; McConnell and Servaes, 1990).

Recent literature highlights that ownership structures also influence financial decision-making and long-term strategic orientation. Managerial ownership may encourage more responsible corporate decisions, strengthen monitoring, and improve the credibility of managerial actions (Bian et al., 2023; Yue et al., 2026). However, its effectiveness is not always consistent. Ownership may also create opportunistic incentives or entrenchment effects under certain governance conditions, suggesting that managerial ownership functions as a contingent mechanism rather than a universally optimal solution (Ghalke et al., 2023; Sun et al., 2025).

Within this framework, managerial ownership is expected to moderate the relationship between financial performance and firm value, as well as between capital structure and firm value. Effective ownership alignment may strengthen the positive impact of profitability and influence how investors interpret leverage decisions. Conversely, weak or misaligned ownership structures may limit the ability of managerial ownership to enhance firm valuation (Bian et al., 2023; Zhang et al., 2024; Yue et al., 2026).

H3: Managerial ownership moderates the relationship between financial performance and firm value.

H4: Managerial ownership moderates the relationship between capital structure and firm value.

2.5 Conceptual Framework

The conceptual framework of this study integrates financial performance and capital structure as the primary determinants of firm value, with managerial ownership acting as a moderating variable. Grounded in agency theory and signaling theory, this framework assumes that financial performance provides a positive signal of managerial efficiency, while capital structure conveys risk-related signals that may either enhance or weaken firm valuation depending on market perception. Managerial ownership is positioned as a governance mechanism that shapes how investors interpret these signals, particularly by reducing agency conflicts and strengthening the credibility of financial information (Jensen and Meckling, 1976; Connelly et al., 2011; Bian et al., 2023).

Furthermore, prior empirical studies indicate that governance and ownership structures interact with financial indicators in conditional ways, influencing firm value outcomes beyond direct effects (Ghalke et al., 2023; Wu et al., 2025; Yue et al., 2026). Therefore, this framework emphasizes both direct and moderating relationships to provide a comprehensive explanation of firm value formation. The proposed research model is illustrated in Figure 3.

3. Research Methodology

3.1 Research Design

This study employs a quantitative research approach with a causal-associative design to examine the effect of financial performance and capital structure on firm value, with managerial ownership serving as a moderating variable. A quantitative design is appropriate as the study relies on numerical financial data and statistical techniques to test hypotheses objectively. The causal-associative framework enables the analysis of both direct relationships and conditional effects through moderation

Table 1. Sample Selection Criteria

No.	Criteria	Number of Firms
1	Listed food and beverage firms (2019–2023)	25
2	Complete financial reports	25
3	Not delisted	25
4	Complete variable data	25
	Final Sample	**25**
	Observation Period	**5 Years**
	Total Observations	**125**

testing.

This research design is consistent with prior studies in corporate finance and firm valuation that utilize financial ratios and regression-based approaches to explain firm value dynamics (Jihadi et al., 2021; Saragih and Forever, 2024). Therefore, the methodological approach allows for a systematic evaluation of how financial and governance factors interact in determining firm value.

3.2 Population and Sample

The population of this study consists of manufacturing firms in the food and beverage sub-sector listed on the Indonesia Stock Exchange (IDX). This sector is selected due to its strategic economic role and relatively stable demand characteristics, despite exposure to cost volatility, competitive pressures, and fluctuations in investor expectations.

The observation period covers 2019–2023, capturing multiple economic phases, including pre-pandemic conditions, the COVID-19 disruption, and post-pandemic recovery. This period is therefore suitable for analyzing firm value dynamics under varying macroeconomic conditions.

The sample is selected using purposive sampling based on specific criteria aligned with the research objectives. The criteria include: (1) firms consistently listed during the observation period, (2) firms publishing complete annual financial reports, (3) firms not delisted during the period, and (4) firms with complete data for all variables. Based on these criteria, 25 firms are selected, resulting in 125 firm-year observations. Data are obtained from the official IDX website and the company's annual reports.

3.3 Variable Measurement

This study consists of one dependent variable, two independent variables, and one moderating variable. Firm value is measured using Price-to-Book Value (PBV), which reflects the market valuation relative to book value. Financial performance is proxied by Return on Assets (ROA), indicating asset utilization efficiency in generating profit. Capital structure is measured by the debt-to-equity ratio (DER), which represents the proportion of debt financing relative to equity financing.

Managerial ownership is used as the moderating variable, measured by the proportion of shares held by management relative to total outstanding shares. This variable represents an internal governance mechanism that may influence the relationship between financial decisions and firm value.

The use of ROA, DER, PBV, and managerial ownership is consistent with prior empirical studies in corporate finance and governance research (Jihadi et al., 2021; Saragih and Forever, 2024; Ghalke et al., 2023).

3.4 Data Analysis Technique

The data are analyzed using panel data regression techniques. The analysis begins with descriptive statistics to summarize variable distributions, followed by classical assumption tests for normality, multicollinearity, heteroscedasticity, and autocorrelation. These procedures ensure that the regression model satisfies the Best Linear Unbiased Estimator (BLUE) assumptions, thereby enhancing the reliability of the results.

Such procedures are particularly important in financial panel data analysis, where issues such as heteroscedasticity and firm-specific heterogeneity may arise (Agyei et al., 2022; Haldar and Sethi, 2022).

Hypothesis testing is conducted using multiple regression analysis and moderated regression analysis (MRA). MRA is used to examine whether managerial ownership moderates the relationships among financial performance, capital structure, and firm value. Interaction terms between ROA and managerial ownership, as well as between DER and managerial ownership, are included to capture moderating effects.

This approach is consistent with governance and agency-based studies that analyze moderating mechanisms in financial decision-making (Haldar and Sethi, 2022; Ghalke et al., 2023). Thus, the empirical model provides insights into both direct financial effects and the conditional role of governance mechanisms in shaping firm value.

4. Results and Discussion

4.1 Descriptive Statistics

Descriptive statistics presented in Table 3 provide an overview of the distributional characteristics of the study variables, including central tendency and dispersion, which are essential for evaluating data suitability prior to hypothesis testing. The results indicate considerable variability across observations, reflecting heterogeneity in financial performance, capital structure decisions, firm valuation, and managerial ownership within the food and beverage manufacturing sector.

As shown in Table 3, financial performance (ROA) records a relatively low mean value (0.0800) with a notable standard deviation (0.1427), indicating substantial variation in profitability, including the presence of firms experiencing losses (minimum −0.4000). Capital structure (DER) exhibits high dispersion (mean = 1.0762; maximum = 17.0400), suggesting diverse leverage strategies and varying degrees of financial risk among firms.

Table 2. Operational Definition of Variables

Variable	Symbol	Variable Type	Measurement
Firm Value	PBV	Dependent Variable	PBV = Market Price per Share / Book Value per Share × 100%
Financial Performance	ROA	Independent Variable	ROA = Net Income after Tax / Total Assets × 100%
Capital Structure	DER	Independent Variable	DER = Total Liabilities / Total Equity × 100%
Managerial Ownership	MAN	Moderating Variable	MAN = Shares Owned by Management / Total Outstanding Shares × 100%

Table 3. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Financial Performance (ROA)	125.0000	−0.4000	0.9400	0.0800	0.1427
Capital Structure (DER)	125.0000	0.1100	17.0400	1.0762	1.8677
Firm Value (PBV)	125.0000	1.0800	7.4800	2.1944	0.9552
Managerial Ownership (MAN)	125.0000	0.0000	0.9200	0.1438	0.2502
Valid N (listwise)	125.0000				

Table 4. Normality Test Results

Test Method	Statistic	Sig.	Decision
Kolmogorov–Smirnov	0.109	0.059	Normal Distribution

Firm value (PBV) shows a moderate mean (2.1944), suggesting that firms are generally valued above their book value, though the wide range reflects varying levels of investor confidence. Meanwhile, managerial ownership (MAN) remains relatively low on average (0.1438), indicating limited managerial equity participation, with significant variation across firms, which may influence the effectiveness of internal governance mechanisms.

4.2 Classical Assumption Tests

As presented in Table 4, the normality test using the Kolmogorov-Smirnov method indicates an Asymp. Sig. (2-tailed) value of 0.059, which exceeds the conventional significance threshold of 0.05. This result suggests that the regression model residuals are normally distributed. The fulfillment of the normality assumption is critical in regression analysis, as it ensures the validity of statistical inference, particularly in hypothesis testing and confidence interval estimation. A normally distributed residual implies that the model does not suffer from systematic bias in error terms, thereby supporting the reliability of the estimated coefficients. In the context of financial and panel data, slight deviations from normality are common; however, the obtained significance level indicates that these deviations are not statistically problematic. Therefore, the regression model satisfies the normality assumption and is considered appropriate for further analysis, including hypothesis testing and moderation analysis.

The multicollinearity test results in Table 5 indicate that all independent variables have tolerance values above 0.10 and Variance Inflation Factor (VIF) values below the threshold of 10. Specifically, the VIF values range from 1.0050 to 1.7840, indicating no strong correlation among the independent variables. This finding confirms the absence of multicollinearity in the regression model. The lack of multicollinearity is important because it ensures that each independent variable contributes unique explanatory power to the model without redundancy or distortion. In financial research, multicollinearity may arise from overlapping economic relationships among variables; however, the results indicate that financial performance, capital structure, and managerial ownership are sufficiently independent in this study. Consequently, the estimated regression coefficients can be interpreted reliably, and the model maintains stability and precision in capturing the relationships between variables.

Based on Table 6, the heteroscedasticity test results indicate that all independent variables have significance values greater than 0.05. Financial performance (ROA) shows a significance value of 0.6070, capital structure (DER) records 0.1300, and managerial ownership (MAN) has a value of 0.0680. These results suggest that the variance of residuals is constant across observations, meaning that the model does not exhibit heteroscedasticity. The absence of heteroscedasticity is essential in ensuring that the regression model produces efficient and unbiased estimates. In empirical financial studies, heteroscedasticity is often associated with variability in firm size, leverage, or profitability; however, the results confirm that such variability does not distort the regression error structure in this study. Therefore, the model satisfies the homoscedasticity assumption, allowing for more accurate hypothesis testing and ensuring the robustness of the regression outcomes.

Table 5. Multicollinearity Test Results

Variable	Tolerance	VIF	Decision
Financial Performance (ROA)	0.5600	1.7840	No Multicollinearity
Capital Structure (DER)	0.5610	1.7840	No Multicollinearity
Managerial Ownership (MAN)	0.9950	1.0050	No Multicollinearity

Table 6. Heteroscedasticity Test Results

Variable	Sig.	Decision
Financial Performance (ROA)	0.6070	No Heteroscedasticity
Capital Structure (DER)	0.1300	No Heteroscedasticity
Managerial Ownership (MAN)	0.0680	No Heteroscedasticity

Table 7. Autocorrelation Test Results

Model	Durbin–Watson	Decision
1	2.1240	No Autocorrelation

The autocorrelation test results presented in Table 7 show a Durbin–Watson value of 2.1240, which falls within the acceptable range between the lower bound (du) and the upper bound (4-du). This indicates that there is no autocorrelation in the residuals of the regression model. The absence of autocorrelation implies that error terms are independent across observations, which is a key requirement for reliable regression analysis. In panel and time-series data, autocorrelation may occur due to temporal dependencies; however, the obtained result confirms that such issues are not present in this study. This finding ensures that the regression coefficients are unbiased and efficient, and that statistical tests remain valid. Consequently, the model satisfies the independence assumption, reinforcing the overall robustness of the empirical analysis and supporting the validity of subsequent hypothesis testing results.

Table 8. Regression Results

Variable	Coefficient (B)	Std. Error	t-Statistic	Sig.	Decision
Constant	1.9190	0.1620	11.8520	0.0000	Significant
Financial Performance (ROA)	3.2640	0.7220	4.5220	0.0000	Significant (+)
Capital Structure (DER)	0.0970	0.1380	0.7040	0.4830	Not Significant
Managerial Ownership (MAN)	0.4810	0.6010	0.8000	0.4250	Not Significant
ROA × MAN	−5.8020	4.6540	−1.2470	0.2150	Not Significant
DER × MAN	−0.5940	0.5530	−1.0740	0.2850	Not Significant

Table 9. Hypothesis Testing Results

Hypothesis	Relationship	Coefficient	Sig.	Decision
H1	Financial Performance → Firm Value	3.2640	0.0000	Supported
H2	Capital Structure → Firm Value	0.0970	0.4830	Not Supported
H3	Financial Performance × Managerial Ownership → Firm Value	−5.8020	0.2150	Not Supported
H4	Capital Structure × Managerial Ownership → Firm Value	−0.5940	0.2850	Not Supported

4.3 Panel Data Regression Results

The panel data regression results presented in Table 8 provide empirical evidence on the effect of financial performance, capital structure, and managerial ownership on firm value. The model incorporates both direct effects and interaction terms to capture the moderating role of managerial ownership. Overall, the regression model demonstrates acceptable explanatory power and statistical validity, supported by the significance of key variables and consistency with classical assumption tests.

As shown in Table 8, financial performance (ROA) has a coefficient of 3.2640 with a t-statistic of 4.5220 and a significance level of 0.0000 (< 0.05), indicating a positive and statistically significant effect on firm value. This implies that a one-unit increase in ROA leads to an increase of 3.2640 in firm value (PBV), holding other variables constant. In contrast, capital structure (DER) has a coefficient of 0.0970 with a t-statistic of 0.7040 and a significance value of 0.4830 (> 0.05), indicating that its effect on firm value is positive but not statistically significant. Similarly, managerial ownership (MAN) shows a coefficient of 0.4810, t-statistic of 0.8000, and significance value of 0.4250, suggesting no significant direct effect on firm value.

Furthermore, the interaction term between financial performance and managerial ownership (ROA × MAN) has a coefficient of −5.8020, with a t-statistic of −1.2470 and significance level of 0.2150, indicating a negative but insignificant moderating effect. Likewise, the interaction between capital structure and managerial ownership (DER × MAN) shows a coefficient of −0.5940, t-statistic of −1.0740, and significance value of 0.2850, confirming that managerial ownership does not significantly moderate the relationship between capital structure and firm value. These findings suggest that although financial performance is a strong determinant of firm value, the role of managerial ownership as a moderating governance mechanism is not empirically supported in this model.

4.4 Hypothesis Testing

The hypothesis testing results presented in Table 9 summarize the statistical significance and direction of the relationships between variables based on the regression analysis. The evaluation of hypotheses is conducted using the significance level ($\alpha = 0.05$), where a p-value below 0.05 indicates support for the proposed hypothesis. Based on Table 9, Hypothesis 1 (H1), which proposes that financial performance positively affects firm value, is supported. This is evidenced by the significance value of 0.0000 (< 0.05) and a positive coefficient, indicating that higher profitability significantly increases firm value. Hypothesis 2 (H2), which examines the effect of capital structure on firm value, is not supported, as the significance value of 0.4830 (> 0.05) indicates that capital structure does not have a statistically significant impact on firm value.

Furthermore, Hypothesis 3 (H3), which posits that managerial ownership moderates the relationship between financial performance and firm value, is not supported. The interaction term (ROA × MAN) shows a significance value of 0.2150 (> 0.05), indicating that managerial ownership does not strengthen or weaken the effect of financial performance on firm value. Similarly, Hypothesis 4 (H4), which proposes that managerial ownership moderates the relationship between capital structure and firm value, is also not supported, as indicated by a significance value of 0.2850 (> 0.05) for the interaction term (DER × MAN). These findings suggest that managerial ownership does not function as an effective moderating mechanism in this model.

4.5 Discussion of Findings

The findings of this study provide important insights into the determinants of firm value in the food and beverage manufacturing sector, particularly from the perspectives of signaling and agency theories. The positive and significant effect of financial performance on firm value reinforces the central premise of signaling theory, which explains that profitability serves as a credible signal of managerial efficiency, operational capability, and future growth prospects (Ross, 1977; Connelly et al., 2011). Firms with stronger financial performance are generally perceived as better able to generate sustainable returns, manage resources efficiently, and maintain business continuity under competitive market conditions. In this context, profitability becomes an important informational cue for investors when assessing whether a firm deserves a higher market valuation. This result is consistent with prior studies emphasizing that financial performance remains one of the most influential indicators in shaping investor expectations and firm value (Derun and Mysaka, 2018; Jihadi et al., 2021; Saragih and Forever, 2024). It also suggests that, in competitive and consumption-driven industries, investors place substantial

weight on firms' ability to convert assets into earnings efficiently.

The significance of financial performance also indicates that market participants respond more strongly to internal operational strength than to ownership-based governance signals. In the food and beverage sector, where firms face cost volatility, demand fluctuations, and competitive pressure, profitability may represent a clearer and more reliable signal than other financial indicators. This supports the argument that financial performance functions not only as an accounting outcome but also as a market communication mechanism. When profitability improves, investors may interpret it as evidence of managerial competence and firm resilience. Prior research similarly shows that profitability and financial performance are closely associated with firm value because they reduce uncertainty and strengthen investor confidence (Jihadi et al., 2021; Putri and As'ari, 2025). Therefore, this study's results confirm that ROA remains a central driver of firm value formation in emerging market settings.

In contrast, the absence of a significant effect of capital structure on firm value suggests that the market does not uniformly interpret leverage decisions as value-enhancing signals. This finding challenges the traditional trade-off and signaling perspectives, which suggest that optimal debt usage may increase firm value through tax advantages and signals of management confidence (Modigliani and Miller, 1963; Ross, 1977). Instead, the result implies that investors may not automatically view debt as a positive indicator of growth capacity or managerial confidence. In sectors characterized by operational sensitivity and economic uncertainty, such as food and beverage manufacturing, leverage may also be perceived as a source of financial risk. This interpretation is consistent with studies showing that the relationship between capital structure and firm value is highly context-dependent and may vary according to profitability, financial flexibility, and market conditions (H. T. Nguyen and A. H. Nguyen, 2022; D. H. Nguyen and Truong, 2026). Therefore, leverage does not consistently function as a positive signal in emerging market contexts.

The insignificant effect of capital structure further suggests that debt financing alone is insufficient to improve firm valuation unless supported by stable earnings, efficient asset utilization, and credible governance practices. When firms carry debt without demonstrating strong operational efficiency, investors may discount the expected benefits of leverage and focus instead on potential financial distress. This finding aligns with the view that capital structure decisions can generate mixed market responses because leverage may simultaneously represent growth opportunity and risk exposure. Recent literature also indicates that financial misallocation and inefficient resource allocation can weaken the ability of corporate financial decisions to improve firm outcomes (Sun et al., 2025). Thus, the result suggests that capital structure should be evaluated alongside broader financial efficiency and managerial decision quality.

The findings also reveal that managerial ownership does not exert a significant direct effect on firm value, nor does it moderate the relationship between financial performance, capital structure, and firm value. This outcome suggests that the alignment mechanism proposed by agency theory may not operate effectively in this specific empirical context. Agency theory argues that managerial ownership can reduce agency conflicts by aligning managers' and shareholders' interests (Jensen and Meckling, 1976). Classic empirical studies also show that ownership structure may influence firm valuation, although the relationship may be non-linear and context-dependent (Morck et al., 1988; McConnell and Servaes, 1990). However, the present findings indicate that managerial ownership may not be strong enough to influence investor perception or strategic decision-making in the observed firms.

The limited role of managerial ownership may be explained by several factors. First, managerial ownership levels may be too low to create meaningful incentive alignment. If managers hold only a limited proportion of shares, their personal wealth may not be sufficiently tied to firm value to alter strategic behavior. Second, ownership concentration and external governance mechanisms may dominate managerial incentives, reducing the independent influence of managerial ownership. Third, investors may pay more attention to realized financial outcomes than to ownership structure when evaluating firms in this sector. This interpretation is consistent with recent governance literature, which shows that ownership mechanisms may produce different effects depending on the institutional environment, ownership concentration, and governance quality (Ghalke et al., 2023; Bian et al., 2023). Therefore, managerial ownership should not be treated as a universally effective governance mechanism.

Furthermore, the lack of moderating effects suggests that internal governance mechanisms alone may not be adequate to strengthen the transmission of financial signals to the market. Although managerial ownership is theoretically expected to enhance the credibility of financial performance and capital structure decisions, the empirical results show that it does not significantly change the relationship between these variables and firm value. This indicates that ownership alignment may require complementary governance conditions, such as transparency, effective boards, high-quality monitoring, and a long-term strategic orientation. Recent studies also suggest that top management roles and ownership-related governance mechanisms may influence corporate outcomes only when embedded within broader organizational and institutional systems (Naseem et al., 2024; Yue et al., 2026). Therefore, managerial ownership may function more as a contingent governance mechanism than as a direct value-enhancing factor.

Overall, the findings underscore that firm value in the food and beverage manufacturing sector is primarily driven by operational performance, while financial structure and ownership mechanisms play a more limited and context-dependent role. This study contributes to the corporate finance and governance literature by showing that profitability remains the most visible and credible signal for investors, whereas leverage and managerial ownership do not automatically translate into higher market valuation. The results also suggest that investors in emerging markets may rely more heavily on observable financial performance than on governance mechanisms whose effectiveness is difficult to assess externally. Consequently, firms seeking to enhance value should prioritize profitability, operational efficiency, transparency, and credible financial communication rather than relying solely on leverage policies or managerial ownership structures.

5. Conclusion

This study examines the effects of financial performance and capital structure on firm value, with managerial ownership as a moderating variable. The empirical findings indicate that financial performance has a positive and significant effect on

firm value. This suggests that profitability remains a reliable indicator of managerial efficiency and future growth prospects. In contrast, capital structure was found to have no significant effect on firm value, suggesting that investors do not consistently interpret leverage decisions as signals that enhance value. The results also indicate that managerial ownership does not have a significant impact on the relationship between financial performance, capital structure, and firm value. The results suggest that, in the food and beverage manufacturing sector, firm value is mostly driven by how well the company is run, while the way it is governed by its owners and its financial situation play a more limited, context-dependent role.

Theoretical Implications

This study makes a valuable contribution to the literature on corporate finance and governance by combining signaling theory and agency theory to explain how firm value is formed. The significant impact of financial performance supports signaling theory, confirming that profitability is a key indicator for investors when evaluating a firm's prospects. However, the insignificant impact of capital structure indicates that leverage does not consistently serve as a positive market signal, particularly in sectors susceptible to cost volatility and economic uncertainty. Furthermore, the negligible moderating effect of managerial ownership refines agency theory by demonstrating that ownership alignment does not inherently enhance the correlation between financial decisions and firm value.

Practical Implications

The findings provide practical implications for managers, investors, and policymakers. For managers, the most important tasks are improving profitability and operational efficiency, because the firm's value is most clearly and credibly determined by its financial performance. For investors, the results suggest that profitability indicators should be given more consideration in investment decision-making than leverage or ownership structure alone. For policymakers and corporate governance actors, the findings imply that managerial ownership should not be treated as a standalone governance solution but rather as part of a broader, integrated approach. Instead, it should be supported by transparency. It should also be supported by effective monitoring. And it should be supported by broader governance mechanisms. These are needed to strengthen investor confidence.

Research Limitations

This study has several limitations. First, the analysis is limited to food and beverage manufacturing firms listed on the Indonesia Stock Exchange during the 2019–2023 period, which may restrict the generalizability of the findings to other sectors or countries. Second, the study uses financial ratios and secondary data, which may not fully capture managerial behavior, investor sentiment, or broader governance quality. Third, managerial ownership is measured solely by the proportion of shares held by management, while other ownership structures, such as institutional, family, and foreign ownership, are not examined. These limitations provide opportunities for further refinement in future studies.

Future Research Directions

Future studies may extend the research by including other sectors, longer observation periods, or cross-country samples to improve external validity. Further research may also incorporate additional governance variables, such as board independence, institutional ownership, audit committee effectiveness, or ownership concentration, to provide a more comprehensive understanding of governance mechanisms. In addition, future studies may examine macroeconomic variables, investor sentiment, and market uncertainty as moderating factors in the relationships among financial performance, capital structure, and firm value. Mixed-method or qualitative approaches may also be useful for exploring how managerial ownership influences strategic decision-making beyond what financial ratios alone capture.

Declarations

CRediT authorship contribution statement

Muhammad Marshal Attarik: Conceptualization, Methodology, Investigation, Data curation, Formal analysis, Writing—original draft, Writing—review & editing.
Diana Puspitasari: Supervision, validation, methodological refinement, Writing—review & editing.
Amalia Nur Chasanah: Data collection, Investigation, Visualization, Literature review, Writing—review & editing.
Pradana Jati Kusuma: Data curation, Statistical analysis support, Visualization, Writing—review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

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Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request. The data are not publicly available due to institutional data usage policies and confidentiality considerations.

Ethics statement

This study uses secondary data from publicly available financial statements and annual reports of companies listed on the Indonesia Stock Exchange (IDX). It does not involve direct interaction with human participants and therefore does not require formal ethical approval. All data were analyzed in accordance with academic integrity standards to ensure accuracy, transparency, and responsible use. The study adheres to ethical research principles, including proper data handling, objective analysis, and the avoidance of misrepresentation.

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Author Biographies

Muhammad Marshal Attarik is a researcher in financial management and corporate governance at Universitas Dian Nuswantoro, Indonesia. His research focuses on firm value, capital structure, and corporate governance in emerging markets.

Diana Puspitasari is a lecturer specializing in corporate finance and governance. Her research interests include financial performance, investment decisions, and sustainability.

Amalia Nur Chasanah is a research assistant focusing on financial analysis and empirical modeling in corporate finance studies.

Pradana Jati Kusuma specializes in statistical analysis and quantitative finance, supporting research in panel data and financial modeling.