

Institutional Ownership, Profitability, and Exchange Rate as Determinants of Firm Value with Capital Structure as an Intervening Variable (Empirical Study of Construction Companies Listed on the Indonesia Stock Exchange, 2007-2024)

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ABSTRACT

This study investigates the determinants of firm value in Indonesian publicly listed construction companies by examining the effects of profitability, institutional ownership, and exchange rate fluctuations, with capital structure as a mediating variable. The sample covers construction firms listed on the Indonesia Stock Exchange from 2007 to 2024. Panel data regression, Structural Equation Modeling–Partial Least Squares (SEM-PLS), and Interpretive Structural Modeling (ISM) are employed to ensure robustness. The results show that profitability positively affects capital structure, while institutional ownership and exchange rate depreciation negatively affect capital structure. Profitability and institutional ownership positively influence firm value, whereas exchange rate depreciation and capital structure negatively affect firm value. Capital structure significantly mediates the relationships between profitability, institutional ownership, exchange rate, and firm value. These findings support Signaling, Agency, Trade-Off, and Hedging theories and highlight the strategic role of capital structure in transmitting internal performance and external macroeconomic conditions to firm value. The study provides practical implications for managers, investors, and policymakers in emerging markets.

INTRODUCTION

Firm value reflects market perceptions of a company's performance, growth prospects, and risk profile, making it a critical indicator for investors in capital markets. In corporate finance theory, maximizing firm value is the primary objective of the firm, as it directly relates to shareholder wealth maximization. Consequently, identifying the determinants of firm value remains a central issue in financial research.

Capital markets are not only influenced by firm-specific information but are also sensitive to macroeconomic conditions and political developments. According to the semi-strong form of the Efficient Market Hypothesis, stock prices adjust rapidly to publicly available information, including macroeconomic and political signals. In emerging markets, changes in government leadership often create uncertainty regarding fiscal, monetary, and development policies, which can affect investor confidence and firm valuation.

In Indonesia, the construction sector holds strategic importance, particularly following the post-2014 government period that emphasized large-scale infrastructure development. Increased public investment in infrastructure has created significant growth opportunities for construction firms, potentially enhancing their operational performance and market valuation. However, such policy-driven expansion also introduces fiscal and macroeconomic risks, contributing to fluctuations in firm value and investor uncertainty.

Empirically, firm value in the construction sector exhibits considerable volatility, suggesting that investor assessments are shaped by both external conditions and internal firm characteristics. Profitability serves as a key internal signal of firm performance and future prospects, while ownership structure—especially institutional ownership—plays a crucial role in corporate governance and agency conflict mitigation. Nevertheless, prior empirical findings on the relationship between ownership structure and firm value remain inconclusive.

Macroeconomic factors, particularly exchange rate fluctuations, further influence firm performance through cost structures, foreign currency exposure, and financial risk. For capital-intensive industries such as construction, exchange rate volatility can significantly affect financing decisions and market valuation.

Capital structure represents a strategic financial decision that may transmit the effects of internal performance and external macroeconomic conditions to firm value. While debt financing offers potential tax benefits, excessive leverage increases financial distress risk. Despite its importance, previous studies report mixed results regarding the role of capital structure in determining firm value, indicating a research gap—especially concerning its mediating function.

Accordingly, this study examines construction companies listed on the Indonesia Stock Exchange over the period 2007–2024 to analyze the effects of profitability, ownership structure, and exchange rate fluctuations on firm value, with capital structure acting as an intervening variable. By integrating internal firm characteristics and external macroeconomic factors within a unified framework, this study aims to contribute to the corporate finance literature and provide insights for investors, managers, and policymakers.

LITERATURE REVIEW

Firm value reflects the market's assessment of a company's performance, growth prospects, and risk exposure. In capital market studies, firm value is considered a comprehensive indicator of corporate success, as it captures investor expectations regarding future cash flows and managerial effectiveness. According to Efficient Market Theory, stock prices incorporate all available information, implying that firm value is influenced by both firm-specific characteristics and macroeconomic conditions.

Profitability represents a firm's ability to generate earnings from its assets and equity. High profitability signals efficient management and strong financial performance. Based on Signaling Theory, profitability conveys positive information to investors regarding future prospects, thereby reducing information asymmetry and enhancing firm value. In addition, profitability determines a firm's internal financing capacity, which influences capital structure decisions.

Institutional ownership plays a critical role in corporate governance by strengthening monitoring mechanisms over management. Drawing on Agency Theory, higher institutional ownership is expected to reduce agency conflicts by improving oversight and disciplining managerial behavior. Effective institutional monitoring may influence strategic decisions, including financing policies, and contribute to higher firm value.

Exchange rate movements reflect macroeconomic conditions that affect corporate performance and financial risk, particularly for firms with exposure to foreign currency transactions or liabilities. Exchange rate volatility may increase uncertainty in cash flows and financing costs, thereby influencing investor perceptions and firm value. From a theoretical perspective, exchange rate risk also affects firms' capital structure decisions as managers seek to manage financial exposure.

Capital structure represents the proportion of debt and equity used to finance corporate activities and serves as a strategic financial decision. According to Trade-Off Theory, firms aim to achieve an optimal capital structure by balancing the benefits of debt, such as tax advantages, against the costs of financial distress. Meanwhile, Pecking Order Theory suggests that firms prioritize internal financing over external debt and equity, implying that profitability significantly influences capital structure choices.

Capital structure is also linked to firm value, as an optimal financing mix can minimize the cost of capital and enhance shareholder wealth. Conversely, excessive leverage may increase bankruptcy risk and reduce firm value. From an agency perspective, debt can function as a control mechanism that limits managerial opportunism and improves firm performance.

Integrating these theoretical perspectives, capital structure functions as a mediating variable that transmits the effects of internal and external factors on firm value. Profitability and institutional ownership influence financing preferences and governance quality, while exchange rate movements affect financial risk and financing conditions. These factors jointly determine capital structure decisions, which subsequently influence firm value.

Overall, this study is grounded in Efficient Market Theory, Signaling Theory, Agency Theory, Pecking Order Theory, and Trade-Off Theory, providing a comprehensive framework to explain the relationships among profitability, institutional ownership, exchange rate, capital structure, and firm value.

Hypothesis Development.

Based on theoretical foundations, prior empirical findings, and the conceptual framework of the study, the research hypotheses are formulated as follows.

Effect of Profitability on Firm Value

Profitability reflects a firm's ability to generate earnings from the capital employed. A higher level of profitability provides a positive signal to investors regarding the firm's future prospects, thereby increasing market confidence and firm value.

H1: Profitability has a positive effect on firm value.

Effect of Ownership Structure on Firm Value

Ownership structure, particularly institutional and managerial ownership, is closely related to monitoring mechanisms over management. An effective ownership structure is expected to reduce agency conflicts and improve the quality of managerial decision-making, which ultimately enhances firm value.

H2: Ownership structure has a positive effect on firm value.

Effect of Exchange Rate on Firm Value

Exchange rate fluctuations affect firm performance through import costs, export revenues, and foreign currency liabilities. Changes in exchange rates may increase uncertainty and risk, which subsequently influence investor perceptions of firm value.

H3: Exchange rate has an effect on firm value.

Effect of Profitability on Capital Structure

Firms with higher profitability tend to have greater internal financing capacity. Based on pecking order theory and signaling theory, more profitable firms are expected to be more selective in the use of debt, indicating that profitability affects capital structure decisions.

H4: Profitability has an effect on capital structure.

Effect of Ownership Structure on Capital Structure

Ownership structure influences management preferences in financing decisions. Strong institutional ownership may encourage either more conservative or more aggressive financing policies, depending on monitoring strategies and risk tolerance.

H5: Ownership structure has an effect on capital structure.

Effect of Exchange Rate on Capital Structure

Exchange rate movements affect firms' financial risk, particularly for firms with exposure to foreign currency liabilities. This condition may influence corporate decisions regarding the proportion of debt and equity in the capital structure.

H6: Exchange rate has an effect on capital structure.

Effect of Capital Structure on Firm Value

Capital structure represents strategic financing decisions undertaken by a firm. An optimal capital structure can minimize the cost of capital and enhance firm value, whereas a suboptimal capital structure may increase bankruptcy risk and reduce firm value.

H7: Capital structure has an effect on firm value.

Mediating Hypotheses

The Mediating Role of Capital Structure in the Relationship between Profitability and Firm Value.

Profitability affects a firm's financing capacity and influences capital structure decisions. An optimal capital structure derived from profitability conditions is expected to enhance firm value. Therefore, capital structure is assumed to mediate the relationship between profitability and firm value.

H8: Capital structure mediates the effect of profitability on firm value.

The Mediating Role of Capital Structure in the Relationship between Institutional Ownership and Firm Value

Institutional ownership plays an important role in monitoring management, including financing decisions reflected in capital structure. A well-monitored capital structure is expected to improve financial efficiency and increase firm value. Thus, capital structure is expected to mediate the relationship between institutional ownership and firm value.

H9: Capital structure mediates the effect of institutional ownership on firm value.

The Mediating Role of Capital Structure in the Relationship between Exchange Rate and Firm Value

Exchange rate fluctuations influence firms' financial risk, particularly through foreign currency exposure, which may lead firms to adjust their capital structure. These adjustments in capital structure are expected to affect firm value. Accordingly, capital structure is assumed to mediate the relationship between exchange rate movements and firm value.

H10: Capital structure mediates the effect of exchange rate on firm value.

Data Analysis Method

This study employs a quantitative explanatory research design using secondary data obtained from construction sector companies listed on the Indonesia Stock Exchange (IDX) during the period 2007–2023. The analysis integrates panel data regression, Structural Equation Modeling–Partial Least

Squares (SEM-PLS), and Interpretive Structural Modeling (ISM) to comprehensively examine the relationships among variables.

Descriptive Statistical Analysis

Descriptive statistics are conducted to provide an overview of the characteristics of the research variables. The analysis includes measures of central tendency and dispersion, such as mean, median, maximum, minimum, and standard deviation. Additionally, skewness, kurtosis, and the Jarque-Bera statistic are used to describe the distributional properties of the data. Descriptive analysis aims to identify data patterns and initial indications of variability among variables.

Panel Data Regression Analysis

Panel data regression is applied to examine the direct relationships between independent variables, the mediating variable, and firm value. Panel data combine cross-sectional and time-series data, enabling better control of unobserved heterogeneity and reducing omitted variable bias.

Three estimation approaches are considered: Common Effect Model (CEM),

Fixed Effect Model (FEM) and Random Effect Model (REM)

The most appropriate panel regression model is selected using the Chow test, Hausman test, and Lagrange Multiplier test. Hypothesis testing is conducted based on the coefficient of determination (R^2), F-statistics for simultaneous effects, and t-statistics for partial effects.

Classical Assumption Tests

To ensure the robustness of the regression results, several diagnostic tests are performed, including tests for multicollinearity, heteroskedasticity, and autocorrelation. Although normality is not a strict requirement for panel data regression based on the Gauss-Markov theorem, normality diagnostics are provided to describe data behavior. These tests aim to ensure that the estimated models produce unbiased and efficient results.

Structural Equation Modeling-Partial Least Squares (SEM-PLS)

SEM-PLS is employed to test the structural relationships among variables simultaneously, particularly to examine mediating effects. The analysis involves: Measurement model evaluation, assessed through Average Variance Extracted (AVE) and composite reliability to ensure validity and reliability.

Structural model evaluation, assessed using R^2 and predictive relevance.

Hypothesis testing, conducted using bootstrapping procedures with a significance level of 5%.

SEM-PLS is chosen due to its flexibility in handling complex models and its suitability for predictive-oriented research.

Mediation Analysis

Mediating effects are tested using the Sobel test, which evaluates the significance of indirect effects of independent variables on firm value through capital structure. Mediation is confirmed when the indirect effect is statistically significant, indicating that capital structure functions as an intervening variable.

Interpretive Structural Modeling (ISM)

ISM is employed as a qualitative complementary method to validate quantitative findings. Through Focus Group Discussions (FGD) involving experts and practitioners, ISM is used to examine whether qualitative insights support or differ from quantitative results. This triangulation enhances the robustness and interpretability of the research findings.

METHODOLOGY

Research Model and Conceptual Framework

The research model is developed to analyze the effects of internal and external factors on firm value, with capital structure serving as a mediating variable. The independent variables include profitability, institutional ownership, and exchange rate, while firm value acts as the dependent variable. Capital structure bridges the relationship between the independent variables and firm value.

Conceptually, profitability reflects a firm's ability to generate earnings, institutional ownership represents corporate governance and monitoring mechanisms, and exchange rate indicates macroeconomic conditions affecting financial risk. These variables are expected to influence capital structure decisions, which subsequently affect firm value. In addition, the independent variables are also assumed to have direct effects on firm value.

This model is grounded in signaling theory, pecking order theory, trade-off theory, and agency theory, providing a comprehensive explanation of the causal relationships between internal factors, external factors, and firm value.

Operational Definition of Variables and Measurement Indicators

Firm Value (Y) : Firm value reflects market perceptions of a firm's performance, prospects, and risk, as represented by stock prices.

Measurement indicator:

Price to Book Value (PBV)

$PBV = \text{Market Price per Share} / \text{Book Value per Share}$

Capital Structure (Z) : Capital structure represents the proportion of debt and equity used to finance corporate activities.

Measurement indicator : Debt to Equity Ratio (DER)

$DER = \text{Total Debt} / \text{Total Equity}$

Profitability (X1) : Profitability indicates a firm’s ability to generate earnings from its resources.

Measurement indicator:

Return on Equity (ROE) : Return on Equity (ROE) is calculated as the ratio of net income to total shareholders’ equity, reflecting the firm’s efficiency in generating profits from the capital invested by its owners.

$$ROE = \text{Net Income} / \text{Total Shareholders' Equity} \times 100\%$$

Institutional Ownership (X2) : Institutional ownership reflects the proportion of company shares held by institutional investors.

Measurement indicator : Percentage of Institutional Ownership

$$\text{Institutional Ownership} = (\text{Institutional Shares} / \text{Total Outstanding Shares}) \times 100\%$$

Exchange Rate (X3) : Exchange rate reflects macroeconomic conditions affecting financial risk.

Measurement indicator : Annual average Rupiah/USD exchange rate

Summary of Operational Variables :

Variable	Type	Indicator	Scale
Firm Value (Y)	Dependent	PBV	Ratio
Capital Structure (Z)	Mediating	DER	Ratio
Profitability (X1)	Independent	ROE	Ratio
Institutional Ownership (X2)	Independent	Institutional Ownership (%)	Ratio
Exchange Rate (X3)	Independent	Rupiah/USD	Ratio

Data Sources

This study employs secondary data obtained from reliable and official sources. Firm-level data, including annual financial statements and annual reports, are collected from the Indonesia Stock Exchange (IDX) and the official websites of respective companies. Macroeconomic data on the Rupiah exchange rate against the US Dollar are obtained from Bank Indonesia (BI).

Sampling Technique

The population of this study consists of construction sector companies listed on the Indonesia Stock Exchange during the period 2007–2024. The sampling technique applied is purposive sampling, with the following criteria:

- Construction sector companies consistently listed on the IDX during 2007–2024.
- Companies publishing complete and accessible annual financial statements during the study period.
- Companies with available data for all research variables.
- Companies not subject to delisting during the observation period.

Companies that do not meet these criteria are excluded from the sample. The purposive sampling method is expected to provide a representative sample of construction sector firms in Indonesia.

RESULTS

Study This examines the problems in the research that will be estimated into four models, the first model uses panel data regression on the influence of profitability, inflation and exchange rates on capital structure, the second model uses the implications for company value panel data regression, the third model uses regression dummy difference in capital structure and company value in the period before and after the 2014 government, while the fourth model uses SEM-PLS interpretive structural method (ISM). The population used in this study is 35 construction companies listed on the Indonesia Stock Exchange during the period 2007 to 2024. A certain number will be taken from the existing population as a sample. What is the name company Which will used in sample obtained from data on Exchange Effect Indonesia (BEI). *Non Probability Sampling* is a subjective sampling process, in this case the probability of selection elements population No can be determined and *purposive sampling* is form withdrawal sample Which based on on criteria certain.

Criteria withdrawal sample Which used by researcher is :

1. Construction Companies that have IPO'd before 2007 and have never been delisted by the Indonesia Stock Exchange
2. Construction Companies that have IPO'd after 2007 and never delisted by the Indonesia Stock Exchange
3. Company construction which already no registered (delisting) in Exchange Indonesia Effects for the period 2007-2024

As for sample company which will observed in study this is :

1	Company Construction Which has IPO before year 2007 And Never delisted by Exchange Effect Indonesia And own report finance complete	35
2.	Company Construction Which has IPO after year 2007 And No Once delisted by Exchange Indonesia Effect	(23)
3.	Company construction Which Already No registered (delisting) in Indonesia Stock Exchange 2007-2023 period	(3)
	Amount Sample End	9
	Observation Year	18
	Amount Observation	162

Sample Study :

No	Name Issuer	Code Stock	IPO
1	PT. Adhi Karya (Persero) Tbk	ADHI	18 March 2004
2	PT. Nusa Konstruksi Enjiniring Tbk	DGIK	19 December 2007

3	PT. Jaya Konstruksi Manggala Pratama Tbk	JKON	4 December 2007
4	PT. Total Bangun Persada Tbk	TOTAL	25 July 2006
5	PT. Surya Semesta Internusa Tbk	SSIA	27 March 1997
6	PT. Wijaya Karya (Persero) Tbk	WIKA	29 October 2007
7	PT. Citra Marga Nusaphala Persada Tbk	CMNP	10 January 1995
8	PT. Jasa Marga (Persero) Tbk	JSMR	12 November 2007
9	PT. Nusantara Infrastructure Tbk	META	18 July 2001

Hypothesis Testing Results

This study examines the effects of profitability, institutional ownership, exchange rate, and capital structure on firm value in publicly listed construction companies during the period 2007–2024 using panel data regression and SEM-PLS analysis.

H1: Profitability → Capital Structure

Panel data regression results indicate that profitability has a positive and statistically significant effect on capital structure ($\beta = 0.888483$; $p = 0.0256$). This suggests that higher profitability enables firms to increase leverage. The SEM-PLS analysis confirms this result, showing a positive and significant effect ($p < 0.001$). Thus, H1 is supported.

H2: Institutional Ownership → Capital Structure

Institutional ownership is found to have a negative and significant effect on capital structure ($\beta = -1.048204$; $p = 0.0339$). This indicates that firms with higher institutional ownership tend to maintain lower leverage levels. SEM-PLS results support this finding ($p < 0.001$). Therefore, H2 is supported.

H3: Exchange Rate → Capital Structure

The exchange rate negatively affects capital structure, as shown by the panel regression results ($\beta = -1.142194$; $p = 0.0057$). This implies that firms reduce leverage when the domestic currency depreciates. SEM-PLS analysis also reveals a negative and significant relationship ($p < 0.001$). Hence, H3 is supported.

H4: Profitability → Firm Value

Profitability has a positive and highly significant effect on firm value ($\beta = 2.471488$; $p < 0.001$). SEM-PLS analysis confirms this positive relationship ($p < 0.001$). Thus, H4 is supported.

H5: Institutional Ownership → Firm Value

Panel regression results show that institutional ownership positively influences firm value ($\beta = 1.521214$; $p = 0.0209$). SEM-PLS results also indicate a positive effect ($p = 0.019$). Therefore, H5 is supported.

H6: Exchange Rate → Firm Value

The exchange rate has a negative and significant effect on firm value ($\beta = -0.780039$; $p = 0.0043$). SEM-PLS analysis confirms this finding ($p < 0.001$). Hence, H6 is supported.

H7: Capital Structure → Firm Value

Capital structure negatively affects firm value ($\beta = -1.006009$; $p < 0.001$), indicating that higher leverage reduces firm value. SEM-PLS analysis supports this result ($p < 0.001$). Thus, H7 is supported.

Mediating Effect of Capital Structure

H8: Profitability → Capital Structure → Firm Value

The results indicate that capital structure successfully mediates the relationship between profitability and firm value. Thus, H8 is supported.

H9: Institutional Ownership → Capital Structure → Firm Value

Capital structure is found to mediate the effect of institutional ownership on firm value, indicating the presence of both direct and indirect effects. Therefore, H9 is supported.

H10: Exchange Rate → Capital Structure → Firm Value

The findings show that capital structure mediates the relationship between exchange rate fluctuations and firm value. Hence, H10 is supported.

Qualitative Results: Interpretive Structural Modeling (ISM)

The qualitative analysis using Interpretive Structural Modeling (ISM) was conducted through Focus Group Discussions (FGD) involving financial management experts. The qualitative findings strongly support the quantitative results, confirming that profitability, institutional ownership, exchange rate, and capital structure play critical roles in determining firm value.

Experts emphasized that highly profitable firms possess stronger debt repayment capacity, institutional ownership enhances governance and monitoring, exchange rate volatility leads firms to reduce leverage, and excessive debt negatively affects firm value. Furthermore, capital structure was confirmed as an effective mediating variable linking internal and external factors to firm value.

DISCUSSION

Profitability and Capital Structure

The empirical results demonstrate that profitability has a positive effect on capital structure. This finding supports the Trade-Off Theory (Kraus & Litzenberger, 1973), suggesting that profitable firms increase leverage to benefit from tax shields while maintaining manageable bankruptcy risk. However, this result contradicts the Pecking Order Theory (Myers & Majluf, 1984), which argues that firms prefer internal financing. The findings indicate that construction firms remain capable of servicing debt despite higher leverage levels.

Institutional Ownership and Capital Structure

The negative relationship between institutional ownership and capital structure supports Agency Theory (Jensen & Meckling, 1976). Higher institutional ownership strengthens monitoring mechanisms, encouraging firms to adopt more conservative leverage policies. This finding is consistent with prior studies by Grier and Zychowicz (1994) and Wang and Luo (2024).

Exchange Rate and Capital Structure

The negative effect of exchange rate movements on capital structure aligns with Hedging Theory (Smith & Stulz, 1985). Firms reduce leverage during periods of currency depreciation to mitigate exchange rate risk. This behavior reflects prudent financial management, particularly in firms with significant foreign currency exposure.

Profitability and Firm Value

Profitability positively influences firm value, supporting Signaling Theory (Ross, 1977). High profitability signals strong financial performance and future prospects, attracting investors and increasing firm valuation. This result is consistent with previous findings by Chauvin and Hirschey (1994) and Sudiyatno et al. (2021).

Institutional Ownership and Firm Value

The positive effect of institutional ownership on firm value highlights the role of institutional investors as effective monitors. This finding supports Signaling Theory (Spence, 1973) and indicates that strong governance structures enhance investor confidence and firm valuation.

Exchange Rate and Firm Value

The negative relationship between exchange rate depreciation and firm value reflects increased operational costs and reduced profitability. This result aligns with Hedging Theory and prior studies by Luo and Wang (2018) and Das and Kumar (2023).

Capital Structure and Firm Value

The negative effect of capital structure on firm value supports Trade-Off Theory and Pecking Order Theory, suggesting that excessive leverage increases financial risk and reduces market valuation. Investors perceive high debt levels as a negative signal regarding firm stability.

Mediating Role of Capital Structure

Capital structure plays a critical mediating role in linking profitability, institutional ownership, and exchange rate to firm value. These findings indicate that capital structure serves as a strategic mechanism through which internal and external factors influence firm valuation.

Qualitative Validation (ISM Results)

The qualitative ISM analysis confirms the quantitative findings. Expert opinions obtained through Focus Group Discussions emphasize that profitability strengthens debt capacity, institutional ownership improves governance quality, exchange rate volatility encourages conservative leverage, and excessive debt negatively affects firm value. Capital structure is consistently identified as a key mediating variable.

CONCLUSION

This study investigates the determinants of capital structure and firm value in Indonesian publicly listed construction companies by examining the roles of profitability, institutional ownership, exchange rate, and capital structure using panel data regression, SEM-PLS, and Interpretive Structural Modeling (ISM). The use of multiple analytical approaches ensures the robustness and consistency of the findings.

The results demonstrate that profitability positively affects capital structure, indicating that highly profitable construction firms tend to increase leverage to finance project expansion and investment opportunities. This finding supports the Trade-Off Theory, highlighting the role of tax shields and debt capacity in profitable firms, although it contradicts the Pecking Order Theory, which emphasizes internal financing preferences.

Institutional ownership is found to have a negative effect on capital structure but a positive effect on firm value. These results confirm the relevance of Agency Theory, suggesting that institutional investors strengthen monitoring mechanisms, reduce agency conflicts, and encourage conservative debt policies while simultaneously enhancing market valuation through improved corporate governance.

Exchange rate depreciation negatively influences both capital structure and firm value. Firms tend to reduce leverage in response to currency depreciation to mitigate financial risk, supporting the modified Trade-Off Theory and Hedging Theory. This finding underscores the vulnerability of construction firms to macroeconomic fluctuations, particularly exchange rate volatility. Furthermore, profitability and institutional ownership have a direct positive impact on firm value, confirming the validity of Signaling Theory, whereby strong financial performance and effective governance send positive signals to the capital market. In contrast, capital structure negatively affects firm value, indicating that excessive leverage increases financial risk and is perceived unfavorably by investors in the construction sector.

Importantly, this study confirms the mediating role of capital structure in the relationships between profitability, institutional ownership, and exchange rate with firm value. Capital structure serves as a strategic transmission mechanism through which internal performance and external macroeconomic factors influence market valuation. The mediating effects are consistently supported by Sobel tests, SEM-PLS, and ISM analysis, strengthening the validity of the empirical model.

Overall, the findings suggest that firm value in the construction sector is shaped by a complex interaction between financial performance, ownership

structure, macroeconomic conditions, and financing decisions, all of which are embedded within Indonesia's institutional and political-economic environment.

Theoretical Implications

This study contributes to the corporate finance literature by integrating Signaling Theory, Agency Theory, Trade-Off Theory, Pecking Order Theory, and Hedging Theory within a unified empirical framework. The results extend Signaling Theory by demonstrating that profitability, ownership structure, exchange rate exposure, and capital structure jointly convey market signals regarding firm value.

The findings also support the Adaptive Market Hypothesis, indicating that the Indonesian capital market requires time to adjust firm valuation in response to changes in macroeconomic conditions and political regimes. In addition, the results align with Political Embeddedness Theory, suggesting that capital structure and firm value are influenced not only by firm fundamentals but also by shifts in government policies and institutional arrangements.

The observed evolution of the role of institutional ownership in the post-2014 period provides empirical support for Stewardship Theory, reflecting the maturation of institutional monitoring mechanisms in Indonesia's capital market. Moreover, the weakened influence of macroeconomic variables on firm value in certain periods indicates the presence of natural hedging and decoupling strategies adopted by construction firms, contributing to the literature on risk management in emerging markets.

RECOMMENDATIONS

Practical Recommendations

Managerial Implications

Construction firms should carefully balance profitability and leverage decisions, recognizing that while profitability increases debt capacity, excessive leverage can reduce firm value. Financial managers are advised to optimize capital structure by considering both tax benefits and financial risk.

Given the significant role of institutional ownership, firms should encourage stable and long-term institutional investors, as their presence enhances governance quality and market confidence. Transparent communication and sound governance practices are essential to sustain positive valuation effects.

Exchange rate risk management should be prioritized, particularly for firms engaged in foreign currency-denominated projects. The implementation of hedging strategies, natural hedges through long-term contracts, and prudent debt currency composition can mitigate adverse exchange rate effects on firm value.

Firms and investors should also remain responsive to macroeconomic dynamics and political transitions, as policy changes can influence financing behavior and market valuation, especially in infrastructure-driven industries.

Recommendations for Future Research

Future studies may expand the sample to include construction firms across ASEAN or other emerging markets to enhance generalizability. Incorporating additional variables such as interest rates, fiscal policy, corporate governance indices, or sustainability performance may provide deeper insights into capital structure and firm value dynamics.

Further research could also explore non-linear relationships and dynamic mediation effects to capture the evolving interaction between macroeconomic conditions, institutional factors, and corporate financial decisions.

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