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THE ROLE OF FIRM SIZE IN MODERATING THE RELATIONSHIP BETWEEN PROFITABILITY AND FIRM VALUE

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Abstrak

Tujuan utama penelitian ini adalah menganalisis pengaruh profitabilitas terhadap nilai perusahaan, dengan ukuran perusahaan sebagai variabel moderasi. Data yang digunakan dalam penelitian ini adalah data sekunder berupa laporan keuangan yang diperoleh dari Bursa Efek Indonesia (BEI) dan situs web perusahaan sampel. Populasi penelitian terdiri dari 27 perusahaan di subsektor konstruksi berat & teknik sipil selama periode 2019–2023. Dengan menggunakan metode purposive sampling, dipilih 17 perusahaan, sehingga menghasilkan 85 observasi. Teknik analisis data yang digunakan adalah regresi linier berganda dengan variabel moderasi (Moderated Regression Analysis/MRA). Analisis dilakukan dengan menggunakan data panel dengan perangkat lunak EViews 13. Pemilihan model dilakukan dengan menggunakan Uji Chow, Uji Hausman, dan Uji Pengganda Lagrange. Hasil penelitian menunjukkan bahwa profitabilitas tidak berpengaruh signifikan terhadap nilai perusahaan. Namun, ukuran perusahaan terbukti memoderasi hubungan antara profitabilitas dan nilai perusahaan, meskipun koefisien moderasi menunjukkan pengaruh negatif. Hal ini menunjukkan bahwa perusahaan yang lebih besar menghadapi tantangan kompleksitas manajerial yang sebenarnya dapat melemahkan pengaruh profitabilitas terhadap nilai perusahaan. Studi ini diharapkan dapat menjadi referensi bagi manajemen perusahaan dan investor dalam mempertimbangkan pengaruh profitabilitas dan ukuran perusahaan terhadap nilai perusahaan.

Kata Kunci: Nilai Perusahaan, Ukuran Perusahaan, Profitabilitas

Abstract

The primary objective of this study is to analyze the effect of profitability on firm value, with firm size serving as the moderating variable. The data used in this study are secondary data in the form of financial statements obtained from the Indonesia Stock Exchange (IDX) and the websites of the sampled companies. The research population consists of 27 companies in the heavy constructions & civil engineering subsector during the 2019–2023 period. Using a purposive sampling method, 17 companies were selected, resulting in 85 observations. The data analysis technique employed is multiple linear regression with a moderating variable (Moderated Regression Analysis/MRA). The analysis was conducted using panel data with EViews 13 software. Model selection was performed using the Chow Test, Hausman Test, and Lagrange Multiplier Test. The results indicate that profitability does not significantly affect firm value. However, firm size is proven to moderate the relationship between profitability and firm value, although the moderation coefficient demonstrates a negative effect. This suggests that larger firms face managerial complexity challenges that may actually weaken the influence of profitability on firm value. This study is expected to serve as a reference for corporate management and investors in considering the influence of profitability and firm size on firm value.

Keywords: *Firm Value, Firm Size, Profitability*

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INTRODUCTION

The growth and development of the heavy constructions and civil engineering sector in Indonesia are one of the key pillars of national infrastructure development. However, this sector faces significant challenges, particularly in terms of fluctuating profitability and uncertainties in firm value due to the dynamics of large-scale projects and global competitive pressures. This phenomenon has become even more relevant in the context of the government's ambition for long-term infrastructure projects and post-pandemic economic recovery efforts. Therefore, studying how profitability and its supporting factors influence firm value in this subsector is crucial to provide tangible contributions to the stability and growth of Indonesia's construction sector.

The selection of heavy constructions & civil engineering companies listed on the Indonesia Stock Exchange as the research object was made because this sector has unique characteristics compared to other sectors. These companies tend to have large asset values, high project risks, and strong sensitivity to changes in government policies. This sets them apart from more stable subsectors such as property or real estate. By focusing on publicly listed companies, this research also has the advantage of accessing transparent and relevant financial data for in-depth analysis.

This study examines the relationship between profitability, firm size, and firm value. Profitability, measured by Return on Assets (ROA), reflects managerial efficiency in asset utilization. Meanwhile, firm size, measured by the natural logarithm of total assets (LN-Total Assets), serves as a moderating variable expected to either strengthen or weaken the influence of profitability on firm value, which is measured by Price to Book Value (PBV).

Several previous studies have explored the relationship between profitability, firm size, and firm value. Studies by Yulianti et al. (2024), Halawa et al. (2024), Inrawan & Lie (2024), Lestari (2023), Faradilla & Effendi (2023), Buti & Wiyarni (2023), Susanti et al. (2023), Diana & Munandar (2023), Surasmi & Putra (2022), Damayanti & Sucipto (2022), Prakoso et al. (2022), Bon & Hartoko (2022), Margono & Gantino (2021), Atiningsih & Izzaty (2021), Darmawan et al. (2020), and Tahu & Susilo (2017) have consistently found that profitability positively affects firm value. In contrast, studies by Maria & Nugraha (2024), Panjaitan & Supriati (2023), and Alghifari et al. (2022) indicate that profitability has a negative effect on firm value. Furthermore, research conducted by Yuliyanti et al. (2023), Pratiwi et al. (2023), Ripaluddin et al. (2023), Nurwulandari et al. (2021), and Reschiwati et al. (2020) concluded that profitability has no significant impact on firm value.

Furthermore, it has been noted that the relationship between profitability and firm value, as moderated by firm size, yields varying results. Studies by Yulianti et al. (2024), Maria & Nugraha (2024), and Panjaitan & Supriati (2023) found that firm size is able to moderate the influence of profitability on firm value. Conversely, studies by Yuliyanti et al. (2023), Rahmawati et al. (2021), and Alghifari et al. (2022) found that firm size does not moderate the relationship between profitability and firm value.

This research gap becomes even more intriguing within the context of the heavy constructions & civil engineering subsector, which has yet to be extensively investigated.

Consequently, this study aims to address this gap and provide a fresh perspective. In doing so, this research offers novelty by analyzing the role of firm size as a moderating variable linking profitability and firm value in companies operating in Indonesia's heavy constructions & civil engineering subsector. This study is expected to be beneficial for corporate management and investors in making strategic decisions and managing risk, as well as to contribute to the financial management literature. The primary objective of this study is to analyze whether firm size moderates the effect of profitability on firm value in the dynamic and challenging construction subsector.

LITERATURE REVIEW

a. Signaling Theory

The signaling theory explains that company management can provide important information to the market through financial policies and operational performance. Brigham & Houston (2020) state that managerial decisions, including high profitability, act as positive signals that enhance investor confidence. Sudana (2015) also explains that signaling theory clarifies how the information held by managers can be used as a signal for investors in assessing company performance and firm value. This suggests that high profitability serves as a crucial signal for investors when evaluating the company's prospects and value.

b. Agency Theory

Agency theory addresses the potential conflicts of interest between a company's owners (principals) and managers (agents). Brigham & Houston (2020) explain that there is a need for effective oversight and control mechanisms to mitigate these conflicts. Sudana (2015) further elaborates that agency theory emerges from the separation of ownership and management, which creates the possibility of conflicts of interest between managers and owners. High profitability serves as one indicator that management is acting to maximize the owners' interests and minimize potential conflicts.

c. Trade-off Theory

The trade-off theory explains that firms must balance the benefits of using debt (such as tax savings) with the potential risk of bankruptcy that may arise. Brigham & Houston (2020) emphasize the importance of finding an optimal capital structure to enhance firm value without increasing excessive financial risk. Sudana (2015) also supports this view by explaining that the trade-off theory states that companies will strive to achieve an optimal capital structure by balancing the tax benefits of debt against the associated bankruptcy costs. This statement underscores that companies must be cautious in using debt financing to maximize benefits while minimizing the risk of default. Larger and more profitable firms typically have greater flexibility in achieving this optimal value.

d. Firm Value

Firm value is one of the key indicators used to assess a company's performance and long-term prospects. According to Brigham & Houston (2020), firm value reflects how investors perceive the company's future prospects and stability. Meanwhile, Horne & Wachowicz (2012) explain that firm value depends on the company's ability to generate future cash flows and the management's ability to manage the associated risks. One commonly used

measure of firm value is the Price to Book Value (PBV) ratio. Sudana (2015) states that PBV can be influenced by various fundamental factors within a company, such as profitability, leverage, and firm size.

e. Firm Size

Firm size is one of the key factors of concern in financial analysis and performance evaluation. According to Brigham & Houston (2020), larger firms tend to have broader access to funding, greater diversification capacity, and stronger reputations for attracting high-quality human resources. Meanwhile, Horne & Wachowicz (2012) state that large firms possess greater resources and are better equipped to withstand risks and business fluctuations. Firm size can be measured using the natural logarithm (Ln) of total assets. Ln Total Assets is an indicator used to describe the scale of operations and resources owned by the company. Sudana (2015) adds that firm size influences capital structure and financial policy, where larger firms are more flexible in managing financing and profit distribution.

f. Profitability

Profitability is a measure of a company's performance in generating profits from the use of its available resources. According to Brigham & Houston (2020), profitability reflects the company's ability to manage liquidity, assets, and debt to generate optimal operating income. Meanwhile, Sudana (2015) explains that profitability is the company's ability to generate profit in relation to its sales, total assets, and equity. In this study, Return on Assets (ROA) was chosen as the primary ratio to measure profitability. Horne & Wachowicz (2012) state that ROA is a key indicator in assessing a company's performance and has a positive relationship with firm value.

g. Hypotesis Development

The Effect of Profitability on Firm Value

Profitability is one of the key indicators of a company's financial performance, reflecting the ability of management to efficiently utilize the company’s resources to generate profits. High profitability indicates a company’s capability to create added value, which ultimately enhances shareholder welfare and the firm’s overall value. Signaling theory (Ross, 1977) posits that high profitability sends a positive signal to investors about the company’s future prospects, thereby boosting market confidence and share prices. Additionally, agency theory (Jensen & Meckling, 1976) explains that high profitability helps to minimize conflicts of interest between managers and owners because it demonstrates the effectiveness of management in asset utilization. Furthermore, Brigham & Houston (2020) note that high profitability increases a firm’s flexibility in financing and strategic decision-making, supporting the enhancement of firm value.

Empirically, several studies have found a positive relationship between profitability and firm value, including research by Yulianti et al. (2024); Halawa et al. (2024); Inrawan & Lie (2024); Lestari (2023); Faradilla & Effendi (2023); Buti & Wiyarni (2023); Susanti et al. (2023); Diana & Munandar (2023); Surasmi & Putra (2022); Damayanti & Sucipto (2022); Prakoso et al. (2022); Bon & Hartoko (2022); Margono & Gantino (2021); Atiningsih & Izzaty (2021); Darmawan et al. (2020); and Tahu & Susilo (2017), all of which have confirmed that profitability positively affects firm value. Based on these

theoretical frameworks and empirical findings, the first hypothesis proposed is:

H_1: Profitability has a positive effect on firm value.

The Effect of Profitability on Firm Value as Moderated by Firm Size

Profitability is a crucial indicator of a company's financial performance as it reflects the ability of management to efficiently utilize assets to generate profit. High profitability indicates that a company is able to create added value, which positively impacts firm value (Brigham & Houston, 2020). Firm value, as measured by the Price to Book Value (PBV), reflects the market's perception of a company's performance and future prospects (Horne & Wachowicz, 2012). Sudana (2015) also emphasizes that profitability is a key benchmark for companies in demonstrating their ability to meet obligations, pay dividends, and invest in long-term growth.

However, the relationship between profitability and firm value is not always linear and can be influenced by internal company factors, one of which is firm size. Firm size, typically measured by the natural logarithm of total assets (Ln Total Assets), is considered important because it reflects the scale of operations and the resources owned by the company (Brigham & Houston, 2020). Horne & Wachowicz (2012) state that larger firms tend to have stronger reputations, greater access to funding, and better capabilities in managing business risks. Sudana (2015) adds that firm size also affects the capital structure and financial policies, which ultimately impact firm value.

According to signaling theory, larger firms with high profitability send a stronger positive signal to the market and investors, thereby enhancing trust and firm value (Ross, 1977). Agency theory explains that larger firms typically have better governance structures that can minimize conflicts of interest and maximize the potential of profitability to increase firm value (Jensen & Meckling, 1976). Meanwhile, trade-off theory (Kraus & Litzenberger, 1973) states that larger firms with high profitability are generally better positioned to balance the benefits of debt use (tax shield) with the costs of financial distress, ultimately achieving an optimal capital structure that enhances firm value.

Based on these theoretical foundations and empirical findings, such as those from Yulianti et al. (2024); Maria & Nugraha (2024); and Panjaitan & Supriati (2023), it has been found that firm size is able to moderate the effect of profitability on firm value. Based on this theoretical framework and empirical evidence, the moderating hypothesis proposed is:

H_2: Firm size moderates the effect of profitability on firm value.

Framework

Based on the theoretical foundations, previous research, and the issues raised as the basis for formulating the hypotheses, the conceptual framework for this research is presented in the model shown in Figure 1 below.

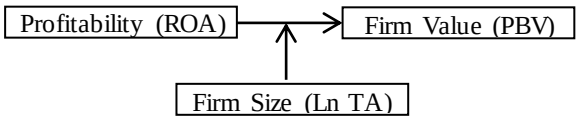

Figure 1 Conseptual Model Method

METODE

This research uses a quantitative approach with an explanatory method, aiming to test the causal relationship between profitability and firm value with firm size as a moderating variable. The data

used in this study are secondary data in the form of financial reports obtained from the Indonesia Stock Exchange (IDX). The population of this research consists of 27 companies in the heavy constructions & civil engineering subsector listed on the IDX during the 2019–2023 period. The sampling technique employed is purposive sampling, with the following criteria for selecting companies:

Table 1 Sample Selesction Criteria

No	Criteria	Quantity
1	Companies listed in the heavy constructions & civil engineering subsector as of December 31, 2023	27
2	Companies that did not publish complete audited financial reports during the 2019–2023 period	(10)
3	Number of sample companies	17
4	Number of observation periods (years)	5
5	**Total research sample: 5 periods × 17 companies**	**85**

Source: Processed Data (2025)

The data analysis technique in this research uses multiple linear regression with a moderating variable (Moderated Regression Analysis/MRA). The analysis was conducted with panel data using EViews 13 software. The panel data analysis technique was chosen because the data covers several companies (cross-sections) over multiple years (time series). Panel data analysis allows for controlling unobserved variables and provides more efficient and unbiased estimates compared to cross-section or time series analysis alone. Before conducting the regression test, model selection was carried out using the Chow Test (to choose between the Fixed Effect Model/FEM or the Common Effect Model/CEM), the Hausman Test (FEM vs. Random Effect Model/REM), and the Lagrange Multiplier Test (REM vs. CEM).

In this research, firm value is the dependent variable, and dividend policy is the moderating variable. The independent variables include leverage, firm size, and profitability.

RESULTS AND DISCUSSION

a. Deskriptive Statistics

Based on the purposive sampling method, 17 companies met the criteria for this research, and the total study period covers 5 years, resulting in 85 observations. The following are the descriptive statistics of the research sample.

Table 2 Deskriptive Statistics

	ROA	SIZE	TOB_Q
Mean	-0.021749	29.30003	1.093273
Median	0.009000	29.14951	0.927420
Maximum	0.242250	32.43986	4.101460
Minimum	-1.277260	25.29689	0.635340
Std. Dev.	0.169519	1.654639	0.552816
Skewness	-5.145984	0.173642	3.581029
Kurtosis	37.10768	2.596879	18.37477
Jarque-Bera	4495.291	1.002690	1018.862
Probability	0.000000	0.605716	0.000000
Sum	-1.848690	2490.502	92.92824
Sum Sq. Dev.	2.413890	229.9777	25.67090
Observations	85	85	85

Source: Secondary Data (Processed, 2025)

Based on Table 2, the minimum profitability (ROA) value is -1.277260, recorded by MTPS in 2021. The maximum value is 0.242250, recorded by PTBA in 2023. The average (mean) value is -0.021749, with a standard deviation of 0.169519. Since the standard deviation is greater than the mean (-0.021749 < 0.169519), this indicates that the profitability ratio variable (ROA) has non-homogeneous data with a high variation spread.

The minimum firm size (SIZE) value is 25.29689, recorded by MTPS in 2023. The maximum value is 32.43986, recorded

by WSKT in 2019. The mean value is 29.30003, and the standard deviation is 1.654639. Since the standard deviation is smaller than the mean (1.654639 < 29.30003), this indicates that the firm size variable (SIZE) has homogeneous data, meaning the data is well-distributed with low variability.

The minimum firm value (Tobin's Q) is 0.635340, recorded by JKON in 2023. The maximum value is 4.101460, recorded by MTPS in 2019. The mean value is 1.093273, with a standard deviation of 0.552816. Since the standard deviation is smaller than the mean (0.552816 < 1.093273), this indicates that the firm value ratio variable (Tobin's Q) has homogeneous data, meaning the data is well-distributed with low variability.

b. Normality Test

Structure I: The Effect of Profitability on Firm Value

Table 3 Results of Normality Test for Structure I

Long-run Normality Test		
Date: 06/04/25 Time: 00:06		
Sample: 2019 2023		
Included observations: 85		
	Statistic	Prob.
Skewness	1.538623	0.061948
Skewness 3/5	2.481818	0.006536
Kurtosis	1.95074	0.025544
Normality	4.66713	0.09695

Source: Secondary Data (Processed, 2025)

Based on the normality test, it was found that the probability value for normality is 0.09695 (> 0.05), indicating that the data is normally distributed.

Structure II: The Effect of Profitability on Firm Value as Moderated by Firm Size

Table 4 Results of Normality Test for Structure II

Long-run Normality Test		
Date: 06/04/25 Time: 00:06		
Sample: 2019 2023		
Included observations: 85		
	Statistic	Prob.
Skewness	1.664952	0.047961
Skewness 3/5	3.291477	0.000498
Kurtosis	1.717439	0.04295
Normality	3.397388	0.182922

Source: Secondary Data (Processed, 2025)

Based on the normality test, it was found that the probability value for normality is 0.182922 (> 0.05), indicating that the data is normally distributed.

c. Model Selection Analisys

Structure I: The Effect of Profitability on Firm Value

Chow Test

Table 5 Results of Chow Test for Structure I

Redundant Fixed Effects Tests Equation: Untitled Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.426183	(16,67)	0.0002
Cross-section Chi-square	50.816660	16	0.0000

Source: Secondary Data (Processed, 2025)

Based on the Chow Test results, the cross-section F value is 0.0000 (< 0.05), indicating that the selected model is the Fixed Effect Model.

Hausman Test

Table 6 Results of Hausman Test for Structure I

Correlated Random Effects - Hausman Test Equation: Untitled Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	7.535679	1	0.0060

Source: Secondary Data (Processed, 2025)

Based on the Hausman Test results, the cross-section random value is 0.0060 (< 0.05), indicating that the selected model is the Fixed Effect Model.

Lagrange Multiplier (LM) Test

Table 7 Results of Lagrange Multiplier (LM) Test for Structure I

Lagrange Multiplier Tests for Random Effects Null hypotheses: No effects

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives			
	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	10.33830	0.454947	10.79324
	(0.0013)	(0.5000)	(0.0010)

Source: Secondary Data (Processed, 2025)

Based on the Breusch-Pagan result from the Lagrange Multiplier (LM) Test is 0.0010 (< 0.05), suggesting that the Random Effect Model is preferred.

Considering the results of the Chow Test, Hausman Test, and LM Test, it can be concluded that the most appropriate model for this study is the Fixed Effect Model.

Structure II: The Effect of Profitability on Firm Value as Moderated by Firm Size

Chow Test

Table 8 Results of Chow Test for Structure II

Redundant Fixed Effects Tests Equation: Untitled Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.935537	(16,65)	0.0324
Cross-section Chi-square	33.118863	16	0.0071

Source: Secondary Data (Processed, 2025)

Based on the Chow Test results, the cross-section F value is 0.0071 (< 0.05), indicating that the selected model is the Fixed Effect Model.

Hausman Test

Table 9 Results of Hausman Test for Structure II

Correlated Random Effects - Hausman Test Equation: Untitled Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.486062	3	0.0902

Source: Secondary Data (Processed, 2025)

Based on the Hausman Test results, the cross-section random value is 0.0902 (> 0.05), indicating that the selected model is the Random Effect Model.

Lagrange Multiplier (LM) Test

Table 10 Results of Lagrange Multiplier (LM) Test for Structure II

Lagrange Multiplier Tests for Random Effects Null hypotheses: No effects Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives			
	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	1.123295	2.873714	3.997009
	(0.2892)	(0.0900)	(0.0456)

Source: Secondary Data (Processed, 2025)

Based on the Breusch-Pagan result from the Lagrange Multiplier (LM) Test is 0.0456 (< 0.05), suggesting that the Random Effect Model is preferred.

Considering the results of the Chow Test, Hausman Test, and LM Test, it can be concluded that the most appropriate model for this study is the Random Effect Model.

e. Panel Data Regression Analysis

Structure I: The Effect of Profitability on Firm Value

Table 11 Panel Data Regression Result for Structure I

Dependent Variable: PBV Method: Panel Least Squares Date: 06/04/25 Time: 00:25 Sample: 2019 2023 Periods included: 5 Cross-sections included: 17 Total panel (balanced) observations: 85				
Variable	Coef-ficient	Std. Error	t-Statistic	Prob.
C	1.228640	0.120941	10.15903	0.0000
ROA	-0.151075	0.944103	-0.160020	0.8733
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.502798	Mean dependent var		1.231926
Adjusted R-squared	0.376642	S.D. dependent var		1.391752
S.E. of regression	1.098830	Akaike info criterion		3.211940
Sum squared resid	80.89766	Schwarz criterion		3.729207
Log	-118.5075	Hannan-Quinn		3.419999

likelihood		criter.		
F-statistic	3.985531	Durbin-Watson stat		2.281790
Prob(F-statistic)	0.000023			

Source: Secondary Data (Processed, 2025)

Based on Table 11, the regression equation is as follows:

Tobin's Q = 1.228640 - 0.151075*ROA

The regression coefficient for profitability (ROA) is -0.151075, with a probability value of 0.8733 (> 0.05), indicating that profitability has no significant effect on firm value, thus rejecting H_1. Furthermore, the Adjusted R-squared value is 0.376642, indicating that leverage, firm size, and profitability collectively explain 37.66% of the variance in firm value, while the remaining 62.34% is explained by other factors.

Structure II: The Effect of Profitability on Firm Value as Moderated by Firm Size

Table 12 Panel Data Regression Result for Structure II

Dependent Variable: PBV Method: Panel EGLS (Cross-section random effects) Date: 06/04/25 Time: 00:35 Sample: 2019 2023 Periods included: 5 Cross-sections included: 17 Total panel (balanced) observations: 85 Swamy and Arora estimator of component variances				
Variable	Coef-ficient	Std. Error	t-Statistic	Prob.
C	8.915462	2.919558	3.053702	0.0031
ROA	60.20409	16.91164	3.559920	0.0006
SIZE	-0.262451	0.099318	-2.642535	0.0099
SIZE_ROA	-2.317031	0.634843	-3.649772	0.0005
Effects Specification				
			S.D.	Rho
Cross-section random			0.429123	0.1346
Idiosyncratic random			1.088177	0.8654
Weighted Statistics				
R-squared	0.211854	Mean dependent var		0.924000
Adjusted R-squared	0.182663	S.D. dependent var		1.229275
S.E. of regression	1.111346	Sum squared resid		100.0424
F-statistic	7.257611	Durbin-Watson stat		1.632948
Prob(F-statistic)	0.000226			
Unweighted Statistics				
R-squared	0.297970	Mean dependent var		1.231926
Sum squared resid	114.2243	Durbin-Watson stat		1.430203

Source: Secondary Data (Processed, 2025)

Based on Table 12, the regression equation is as follows:

Tobin's Q = 8.915462 + 60.20409*ROA - 0.262451*SIZE - 2.317031* SIZE_ROA

The regression coefficient for profitability (ROA) as moderated by firm size (SIZE_ROA) is -2.317031, with a probability value of 0.0005 (< 0.05), indicating that firm size is able to moderate the effect of profitability on firm value, thus supporting H_2. Furthermore, the Adjusted R-squared value is 0.182663, indicating that leverage, firm size, and profitability collectively explain 18.17% of the variance in firm value, while the remaining 91.83% is explained by other factors.

The Effect of Profitability on Firm Value

The results of this study indicate that profitability, as measured by Return on Assets (ROA), does not have a significant effect on firm value, as measured by Price to Book Value (PBV). This finding suggests that although profitability is an important indicator of financial performance, in the context of this research, its influence is not strong enough to significantly enhance firm value.

According to agency theory proposed by Jensen and Meckling (1976), the potential conflict of interest between managers and owners may reduce the effectiveness of management in utilizing the profits generated to improve firm value. If management does not prioritize the interests of the owners, even high profitability does not necessarily translate into higher firm value.

Signaling theory presented by Ross (1977) explains that high profitability should serve as a positive signal to investors about the company's future prospects. However, in some conditions, the market may doubt the reliability of such a signal due to external factors such as sector instability or perceptions of high risk, leading to an absence of a positive market response to high profitability.

Meanwhile, trade-off theory (Kraus & Litzenberger, 1973) states that firms must balance the benefits of debt usage (such as tax shields) with the costs of bankruptcy. In the context of firms with high profitability but lacking optimal financing and investment policies, the firm may not be able to convert profitability into significant added value for the company (Brigham & Houston, 2020).

Brigham and Houston (2020) also explain that although profitability is important, firm value is influenced by numerous other internal and external factors, such as industry risks, economic conditions, and investor trust. Sudana (2015) adds that while high profitability is an important benchmark, it does not guarantee an increase in firm value if it is not accompanied by appropriate investment and financing policies.

These findings are consistent with several empirical studies. Research by Yuliyanti et al. (2023); Pratiwi et al. (2023); Ripaluddin et al. (2023); Nurwulandari et al. (Nurwulandari et al., 2021); and Reschiwati et al. (2020) all conclude that profitability does not have a significant effect on firm value. These studies suggest that other variables, such as external risks, industry structure, and managerial strategy, are more dominant in influencing firm value compared to profitability alone.

Overall, these findings indicate that although profitability is an important indicator, its effect on firm value is not always significant, especially when moderating factors and the external environment of the company play a more dominant role in shaping market perceptions of firm value.

The Effect of Profitability on Firm Value as Moderated by Firm Size

The results of this study indicate that firm size, as measured by the natural logarithm of total assets (Ln Total Assets), is able to moderate the effect of profitability (ROA) on firm value (PBV). However, the obtained moderation coefficient is negative, meaning that as firm size increases, the positive influence of profitability on firm value actually becomes weaker.

According to agency theory proposed by Jensen and Meckling (1976), larger firms typically have more complex and effective governance structures to reduce conflicts of interest between managers and owners. Firm size is expected to support management in leveraging profitability to enhance firm value. However, the negative moderation effect found in this study suggests that the complexities associated with managing larger firms can create bureaucratic inefficiencies that diminish the effectiveness of profitability in driving up firm value.

In the context of signaling theory put forth by Ross (1977), larger firms with high profitability should be able to send stronger positive signals to the market. However, the negative moderation coefficient suggests that the market may perceive larger firm size as an additional structural burden—such as higher operational costs or increased business risks—which can dilute the positive signal of profitability in enhancing firm value.

Meanwhile, trade-off theory (Kraus & Litzenberger, 1973) posits that larger firms are generally better able to balance the benefits of debt use (tax shields) against the costs of financial distress. Nevertheless, in the context of this negative moderation effect, it suggests that larger firm size might actually increase financial risks and hinder the firm's ability to convert profitability into increased market value (Brigham & Houston, 2020).

Brigham and Houston (2020) emphasize that firm size is a critical indicator supporting flexibility in financing and strategic decision-making. However, if not managed optimally, larger firms may encounter bureaucratic challenges that weaken the synergy between profitability and firm value. Sudana (2015) also notes that while firm size has the potential to be advantageous, this can only be realized if supported by sound managerial strategies.

This finding is consistent with empirical studies such as those conducted by Yulianti et al. (2024), Maria & Nugraha (2024), and Panjaitan & Supriati (2023), which found that firm size is able to moderate the effect of profitability on firm value. However, the negative coefficient in this study provides new insights, showing that the role of firm size as a moderator is contextual. In some cases, larger firm size does not always strengthen the positive influence of profitability but may actually weaken it when companies face complex management challenges and dynamic market conditions.

Overall, this result highlights that while firm size can theoretically support the relationship between profitability and firm value, in practice, internal management challenges and external market conditions can lead to a negative moderating effect.

CONCLUSION AND SUGGESTIONS

Based on the results of this study, it can be concluded that profitability as measured by Return on Assets (ROA) does not have a significant effect on company value as measured by Price to Book Value (PBV). Although profitability is one of the main indicators of financial performance, in the context of the heavy construction & civil engineering subsector in Indonesia, profitability has not been a major factor in driving company value. This is because the subsector utilizes greater debt when starting its work. Furthermore, company size as measured by the natural logarithm of total assets (Ln Total Assets) is able to moderate the relationship between profitability and company value. However, the negative moderation coefficient indicates that along with the increase in company size, the positive effect of profitability on company value tends to weaken. This finding indicates the existence of internal challenges and managerial complexities faced by large companies in utilizing profitability to optimally contribute to company value.

Based on these findings, it is recommended that management in the heavy constructions & civil engineering subsector not only focus on improving profitability, but also strengthen managerial strategies and internal oversight to ensure that achieved profitability can be effectively converted into increased firm value. For investors, these results serve as a reminder that even when a company demonstrates high profitability, investment decisions should consider other factors such as firm size and managerial effectiveness. For future research, it is recommended to incorporate other variables that may influence firm value, such as dividend policy, industry risk, and macroeconomic factors like government

policy stability and global market conditions. Additionally, future studies may consider using a longer time frame or cross-country data to broaden the scope and validity of the findings.

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