

THE IMPACT OF OPERATIONAL PROFITABILITY AND ASSET GROWTH ON COMPANY VALUE WITH DEBT STRUCTURE AS A MODERATING VARIABLE



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Abstract

This study aims to analyze the effect of operational profitability and asset growth on firm value and to examine the role of capital structure as a moderating variable. The research sample consists of 26 transportation and logistics companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period, with a total of 130 observations. The analytical methods employed are multiple linear regression and Moderated Regression Analysis (MRA). The results indicate that operational profitability and asset growth do not have a significant effect on firm value. The moderation analysis shows that capital structure moderates the relationship between operational profitability and firm value with a weakening effect, while it does not moderate the relationship between asset growth and firm value. Meanwhile, the simultaneous test results reveal that operational profitability and asset growth jointly have a significant effect on firm value. This study emphasizes that firm value is influenced by the combination of financial performance and an optimally managed capital structure.

Keywords: Operational Profitability, Asset Growth, Capital Structure, Firm Value

INTRODUCTION

Firm value is a key indicator that reflects how the market assesses a company's performance and future prospects. A high firm value indicates that investors have confidence in the company's ability to create sustainable economic value and manage its resources effectively (Hastuti et al., 2024). In the context of the capital market, firm value is commonly measured using the Price to Book Value (PBV) ratio, as this metric reflects the extent to which the market values a company's net assets relative to their book value. Therefore, analyzing the factors that influence firm value is an important issue for management, investors, and other stakeholders (Natalia et al., 2025).

One of the internal factors that plays a role in determining firm value is operating profitability. Operating profitability reflects a company's ability to generate profits from its core activities before being affected by financing and taxation policies. Operating Profit Margin (OPM) is used as an indicator to assess a company's operational efficiency in managing costs and generating profits from its primary operating activities. Strong operating profitability theoretically provides a positive signal to investors regarding company performance, as it indicates the firm's ability to generate sustainable profits from its core operations (Kurniasari et al., 2023).

The relationship between operating profitability and firm value is not always linear. In practice, companies with high levels of operating profitability do not necessarily have high firm value. Investors consider not only the magnitude of operating profits but also profit stability, business risk, and the company's long-term growth prospects. This condition indicates that operating profitability needs to be analyzed more deeply in relation to firm value (Boenyamin & Santioso, 2023).

Asset growth is an important factor associated with increases in firm value. Asset growth reflects a company's expansion strategy and management's ability to develop economic resources to support future operational activities and investments. An increase in corporate assets is often perceived as a positive signal by the market, as it indicates growth opportunities and enhanced company capacity (Hastuti et al., 2024).

Nevertheless, high asset growth is not always positively received by investors. In some cases, asset expansion raises concerns regarding asset utilization efficiency and the potential increase in operating costs. Asset growth that is not accompanied by improved profitability may be viewed as an ineffective strategy and has the potential to reduce firm value. This indicates that asset growth is not the sole indicator of corporate success, but must be evaluated in conjunction with the company's operational performance (Natalia et al., 2025).

The discrepancy between theory and empirical reality is reflected in previous studies that have reported inconsistent findings regarding the effect of operating profitability and asset growth on firm value. The study by Yanah and Sutrisna (2023) shows that Operating Profit Margin has an effect on firm value. Research conducted by Preatmi and Maesaroh (2021) and Waitun et al. (2022) indicates that Operating Profit Margin has a significant positive effect on firm value. In contrast, the study by Wardani and Zulkifli finds that Operating Profit Margin has no effect on firm value. Several prior studies have also examined the impact of asset growth on firm value. Boenyamin and Santioso (2023) find that asset growth does not have a significant effect on firm value, whereas studies by Haerunnisah et

al. (2025) and Valency et al. (2024) report that asset growth has a positive effect on firm value.

The inconsistency in these research findings suggests the presence of other factors that may strengthen or weaken the relationship between operating profitability, asset growth, and firm value. One factor that is presumed to play a role is capital structure, which is measured using the Debt to Equity Ratio (DER). Capital structure reflects a company's financing policy in utilizing external funds to support operational activities and asset expansion. A high DER indicates a greater reliance on debt, which may provide leverage benefits while simultaneously increasing financial risk. From the perspective of trade-off theory, the use of debt can increase firm value up to an optimal level due to tax benefits; however, excessive debt usage may increase bankruptcy risk and ultimately reduce firm value. Therefore, capital structure has the potential to moderate the relationship between operating profitability, asset growth, and firm value (Kamisanti et al., 2025).

In addition, most previous studies have relied on general profitability indicators such as Return on Assets (ROA) or Return on Equity (ROE), which do not fully represent a company's operational efficiency. The use of Operating Profit Margin (OPM) as a proxy for operating profitability in examining its effect on firm value remains relatively limited. On the other hand, studies on asset growth have generally not examined it simultaneously with the company's operational performance and have predominantly positioned capital structure as an independent variable rather than as a moderating variable.

Based on the above discussion, it can be concluded that there remains a research gap regarding the effect of operating profitability and asset growth on firm value with capital structure as a moderating variable. The diverse research findings indicate that the relationships among these variables have not yet been comprehensively explained. Furthermore, most prior studies have examined each variable partially, thus failing to provide a holistic understanding of how operational performance and corporate growth strategies influence firm value. Therefore, this study offers novelty by simultaneously examining the effect of operating profitability and asset growth on firm value, while also incorporating capital structure as a moderating variable. This approach is expected to contribute theoretically to the development of financial management literature and to provide practical implications for management and investors in evaluating corporate growth strategies and operational performance.

REVIEW OF LITERATURE

Signaling Theory and Trade-Off Theory

Signaling Theory explains that information asymmetry exists between corporate management and external parties, particularly investors, because management possesses more comprehensive information regarding the firm's condition and future prospects. To reduce this information asymmetry, companies convey signals to the market through financial performance and strategic policies as reflected in their financial statements. The signals communicated by the company are then interpreted by investors as a basis for making investment decisions (Connelly et al., 2021).

Strong financial performance is perceived as a positive signal because it reflects the quality of the firm and the sustainability of its future operations. Performance information

disclosed through financial statements serves as a foundation for investors in assessing a company's ability to create value. Investor responses to these signals are reflected in rising stock prices and increased firm value. Therefore, Signaling Theory is widely applied in capital market research to explain the relationship between corporate performance and firm value (Gaio et al., 2022).

However, Signaling Theory alone does not fully explain why identical financial performance signals may be interpreted differently by investors in firms with different financing structures. In this context, Trade-Off Theory complements Signaling Theory by explaining the role of capital structure in shaping how financial performance signals are interpreted by the market. Trade-Off Theory posits that the use of debt provides benefits in the form of a tax shield, as interest expenses reduce corporate tax liabilities. Nevertheless, excessive reliance on debt increases the risk of financial distress and potential bankruptcy. Consequently, financial managers tend to choose an optimal level of debt, namely the point at which the benefits of debt usage are balanced against the costs it generates (Hastutik et al., 2022).

Integrating Signaling Theory and Trade-Off Theory provides a more comprehensive explanation of how corporate financial performance influences investor perceptions. Capital structure functions as a variable that can strengthen or weaken the effectiveness of financial performance signals. Accordingly, the Debt to Equity Ratio (DER) is positioned as a moderating variable that affects the relationship between operating profitability and asset growth on firm value. An optimal debt structure is expected to strengthen the influence of financial performance on firm value, whereas excessive debt levels may weaken this relationship due to heightened financial risk.

Company Value

Firm value is an important measure in corporate finance studies, reflecting the market's assessment of a company's profit prospects and its ability to create value for shareholders. Firms with high value indicate positive market expectations regarding future performance. Firm value can be measured using indicators such as Price-to-Book Value (PBV), Tobin's Q, and market capitalization. Fundamental theories commonly applied in empirical research include Agency Theory, which explains conflicts between management and shareholders, and Signaling Theory, which explains how managerial decisions convey information that influences investor perceptions of firm value (Marlindo et al., 2021).

Firm value is influenced not only by current financial conditions but also by investor expectations regarding future performance. Information related to profitability, asset growth, and financing structure serves as important signals that shape market perceptions of firm value. Empirical evidence suggests that firm value is determined by a combination of internal and external factors. Internal factors such as profitability and asset growth often exert a positive influence, while capital structure may strengthen or weaken these effects depending on the level of financial risk borne by the firm (Wulandari & Istiqomah, 2025).

Operating Profitability

Operating profitability, as measured by the Operating Profit Margin (OPM), reflects a company's ability to generate profits from its core operating activities before accounting for interest and tax expenses. OPM is an important indicator because it demonstrates

operational efficiency and management effectiveness in controlling production and operating costs (Octaviani & Maria, 2024).

A high OPM sends a positive signal to investors, as it indicates the company's ability to generate sustainable profits from its core activities. Firms with higher OPM tend to exhibit stronger operating cash flows and lower operational risk. Empirical studies indicate that OPM has a positive effect on firm value. However, the strength of this effect may be influenced by the firm's debt structure, as high levels of leverage may reduce the positive impact of operating profitability on firm value due to increased financial risk (Pujiastuti et al., 2024).

Asset Growth

Asset growth reflects an increase in a company's total assets from one period to the next as a result of investment and expansion activities. Asset growth is often associated with corporate efforts to enhance production capacity and expand market share. In firm growth theory, increases in assets are regarded as a positive signal regarding a company's long-term prospects. Investors tend to perceive firms with high asset growth as having strong potential for future revenue and profit growth (Sari et al., 2025).

However, asset growth may also entail risks if it is not accompanied by improvements in profitability. Aggressive asset expansion often requires external financing, which can increase debt burdens and financial risk. Therefore, the relationship between asset growth and firm value is not always linear. The effectiveness of asset management and the firm's financing structure are critical factors in determining whether asset growth has a positive or negative impact on firm value (Wulandari & Istiqomah, 2025).

Debt Structure

Debt structure is measured using the Debt to Equity Ratio (DER), which indicates the proportion of a company's financing that originates from debt relative to equity. DER reflects the level of leverage and financial risk faced by the firm. The use of debt at a certain level may provide benefits in the form of tax savings, thereby potentially increasing firm value. However, an excessively high proportion of debt increases interest expenses and bankruptcy risk, which can reduce investor confidence. This condition indicates that debt structure must be managed optimally to avoid negative effects on firm value (Murfiqoh & Handayani, 2024). A higher DER indicates that the firm relies more heavily on debt than equity in its capital structure, resulting in greater leverage and financial risk. Conversely, a lower DER suggests that the firm depends more on equity financing and maintains a more manageable debt burden (Aristawati & Hariyanto, 2025).

Therefore, in this study, DER is positioned as a variable that can strengthen or weaken the relationship between firm performance variables—such as profitability and asset growth—and firm value. Differences in debt structure levels may lead to varying market responses to corporate performance, making DER a relevant factor in explaining variations in the effects of these variables on firm value.

Hypothesis Development

Based on Signaling Theory, a firm's financial performance is viewed as a signal conveyed by management to investors to reduce information asymmetry. Information

regarding profitability and firm growth disclosed through financial statements is used by investors to assess the company's prospects and business sustainability, which are subsequently reflected in firm value. High operating profitability reflects the firm's efficiency in generating profits from its core activities, while asset growth indicates an expansion strategy and management's optimism regarding the firm's long-term growth opportunities. Furthermore, Trade-Off Theory explains that debt structure plays a role in determining firm value through a balance between the benefits of debt usage and financial risk. The use of debt can increase firm value through tax benefits up to a certain level; however, excessive debt levels may increase bankruptcy risk and reduce firm value. Therefore, debt structure is considered to have the potential to strengthen or weaken the influence of operating profitability and asset growth on firm value (Warsiki & Dewi, 2023). Based on the above theoretical discussion, the research hypotheses are formulated as follows:

H1: Operating profitability has an effect on firm value.
H2: Asset growth has an effect on firm value.
H3: Operating profitability and asset growth simultaneously affect firm value.
H4: Debt structure moderates the effect of operating profitability on firm value.
H5: Debt structure moderates the effect of asset growth on firm value.

RESEARCH METHOD

Research Types and Approaches

This study uses a quantitative approach with an explanatory method. The explanatory method is used to explain the effect of independent variables on dependent variables, both partially and simultaneously. In addition, the explanatory method is used to test the role of moderating variables in strengthening or weakening the relationship between variables. This study aims to empirically and measurably examine the influence of operational profitability and asset growth on company value and the role of debt structure as a moderating variable through an interaction regression model (Sugiyono, 2020).

Population, Sample, and Research Data Sources

The research population consists of 26 transportation and logistics companies listed on the Indonesia Stock Exchange (IDX). This sector was chosen because it has asset-intensive operational characteristics and a relatively high level of dependence on external funding, making it relevant to examine the role of operational profitability, asset growth, and debt structure in determining company value. The type of data used in this study is secondary data, namely the companies' annual financial reports. The data was obtained from the official website of the Indonesia Stock Exchange and the official websites of each company. Secondary data was chosen because it has been audited and has a sufficient level of objectivity and reliability for empirical analysis. The sampling technique used was purposive sampling with the following criteria:

Table 1.
Sampling Criteria

No	Sample Criteria	Number
1	Transportation and logistics companies listed on the IDX until 2026	39
2	Transportation and logistics companies not listed on the IDX during the 2020-2024 period	(2)
3	Companies that did not publish complete and consistent annual financial reports during the 2020-2024 period	(11)
4	Sample Size	26

Source: Data Processed By Researchers, 2026

Based on these criteria, all 26 companies met the requirements as research samples, so the total observations used were 130 data points (26 companies × 5 years).

Research Variables and Operational Definitions

The study involved dependent variables, independent variables, and moderating variables measured using the following financial indicators:

1. Company Value (Y)

Company value is measured using Price to Book Value (PBV). PBV is a ratio that reflects the market's perception of a company's value by comparing the market price of its shares with the company's book value. A higher PBV value means that the market has a positive assessment of the company and reflects a high level of investor confidence in the company's performance and prospects. The PBV formula is as follows:

$$PBV = \frac{\text{Stock Price}}{\text{Book Value}}$$

Where:

$$\text{Book Value} = \frac{\text{Equity Amount}}{\text{Number of Shares Outstanding}}$$

2. Operating Profitability (X1)

Profitabilitas operasional merupakan kemampuan perusahaan dalam menghasilkan laba dari aktivitas operasional sebelum bunga dan pajak. Variabel ini mencerminkan efisiensi operasional perusahaan dalam menjalankan kegiatan usahanya. Adapun rumus *Operating Profit Margin* (OPM) yaitu:

$$OPM = \frac{EBIT}{\text{Net Sales}}$$

3. Asset Growth (X2)

Asset growth describes the increase in a company's total assets from one period to the next, reflecting the company's expansion and growth potential. The formula for asset growth is as follows:

$$\text{Asset Growth} = \frac{(\text{Current Assets} - \text{Previous Year's Assets})}{\text{Previous Year's Assets}}$$

4. Debt Structure (Z)

The debt structure reflects the proportion of a company's funding that comes from debt compared to its own capital, which indicates the company's leverage and financial risk. The debt structure formula is as follows:

$$\text{Debt to Equity Ratio (DER)} = \frac{\text{Total Debt}}{\text{Equity}}$$

Data Analysis Techniques

Data analysis techniques in research use statistical analysis with the help of data processing software. According to Sugiyono (2020), quantitative data analysis is used to test previously formulated hypotheses.

Descriptive Statistics

Descriptive statistical analysis is used to describe the characteristics of research data, including the minimum, maximum, mean, and standard deviation of each research variable.

Classical Assumption Test

Normality Test

The classical assumption test in this study includes a normality test conducted to determine whether the residuals in the regression model are normally distributed. The normality test was performed through visual analysis using the Regression Standardized Residual Histogram and Normal Probability–Probability (P–P) Plot. The normality testing criteria are set so that in the Regression Standardized Residual Histogram, the residuals are declared to be normally distributed if the residual distribution pattern forms a curve that resembles a normal distribution (bell-shaped) and spreads relatively symmetrically around zero. Meanwhile, in the Normal P–P Plot, the residuals are declared to be normally distributed if most of the residual points are around and follow the diagonal line, with small deviations, especially at the tail of the distribution, which are still tolerable as long as they do not form a systematic pattern that deviates far from the diagonal line.

Multicollinearity Test

The multicollinearity test is used to determine the existence of high correlation between independent variables. The testing criteria used are a Tolerance value of more than 0.10 and a Variance Inflation Factor (VIF) value of less than 10. If both criteria are met, it can be concluded that there is no multicollinearity in this study.

Heteroscedasticity Test

The heteroscedasticity test is used to determine the existence of residual variance inequality. The test criteria stipulate that if the significance value is greater than 0.05, then there is no heteroscedasticity, whereas if the significance value is less than 0.05, then heteroscedasticity occurs.

Hypothesis Testing

Partial testing (t-test) is used to determine the partial effect of independent variables and moderating variables on company value. The testing criteria are set such that if the significance value (Sig) < 0.05, the hypothesis is accepted, whereas if the significance value (Sig) ≥ 0.05, the hypothesis is rejected. In addition, simultaneous testing (F test) is used to determine the simultaneous effect of independent variables on company value. Simultaneous hypothesis testing is performed using the F test, which compares the F-count with the F-table, with the criteria that if the significance value (Sig) < 0.05, the independent variables have a simultaneous effect, while if the significance value (Sig) > 0.05, the independent variables do not have a simultaneous effect. Furthermore, the coefficient of determination (R²) test is used to determine the ability of independent variables and moderating variables in explaining the variation in company value, where an Adjusted R² close to 0 indicates a low ability of independent variables in explaining the variation in company value, while an Adjusted R² close to 1 indicates a high ability of independent variables in explaining the variation in company value.

Multiple Linear Regression Analysis and Moderated Regression Analysis (MRA)

Multiple linear regression analysis is used to test hypotheses H1, H2, and H3, namely the effect of Operating Profit Margin and Assets Growth on company value. The regression model used in this study is formulated as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Explanation:

Y = Company Value (PBV)

X1 = Operating Profit Margin (OPM)

X2 = Assets Growth (AG)

α = Constant

β1, β2 = Regression Coefficients

ε = Standard Error

Meanwhile, moderation regression analysis was used to test hypotheses H4 and H5, namely the role of Debt to Equity Ratio as a moderating variable in the effect of Operating Profit Margin and Assets Growth on company value. The moderation regression equation model is formulated as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 Z + \beta_4 (X_1 \times Z) + \beta_5 (X_2 \times Z) + \varepsilon$$

Explanation:

Y = Company Value (PBV)

X1 = Operating Profit Margin (OPM)

X2 = Assets Growth (AG)

Z = Debt to Equity Ratio (DER)

X1×Z = Interaction between OPM and DER

X2×Z = Interaction between Assets Growth and DER

α = Constant

β1, β2 = Regression Coefficients

ε = Error Term

RESULTS AND DISCUSSION

Overview of Research Objects

The object of this study consists of transportation and logistics sector companies listed on the Indonesia Stock Exchange (IDX). This sector was selected due to its strategic role in supporting the mobility of goods and services. In addition, the sector is influenced by macroeconomic dynamics, fluctuations in operating costs, and corporate financing policies. These characteristics make the transportation and logistics sector relevant for examining the relationship between operational performance, firm growth, and firm value within the context of financial structure.

The data used in this study are secondary data in the form of annual financial statements obtained from the official website of the Indonesia Stock Exchange and other supporting sources. The observation period covers five years, from 2020 to 2024. Based on the sample selection criteria, a total of 26 transportation and logistics sector companies met the research requirements. With an observation period of five years, the total number of observations in this study is 130 firm-year data points (26 firms \times 5 years).

This study analyzes firm value as the dependent variable, reflecting market perceptions of corporate performance. The independent variables are operating profitability and asset growth, which represent the firm's ability to generate profits from core operating activities and its capacity to expand assets, respectively. This study incorporates debt structure as a moderating variable to examine whether the level of corporate debt usage strengthens or weakens the effect of operating profitability and asset growth on firm value.

Data Analysis

Descriptive Statistical Analysis

This study uses 130 observational data from 26 companies in the transportation and logistics sector during the period 2020–2024. Descriptive statistics aim to provide an overview of the characteristics of each research variable in terms of minimum, maximum, mean, and standard deviation values.

Table 2.
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
OPM	130	-5.09	32.70	1.4001	5.22784
Asset Growth	130	-.95	35.20	.8492	4.12216
PBV	130	-10.00	22.25	1.0245	3.14320
DER	130	-19.62	41.65	.7127	4.86195
Valid N (listwise)	130				

Source: Data processed, 2026

Based on the results of the descriptive statistical analysis, the Operating Profitability (OPM) variable has a minimum value of -5.09 and a maximum value of 32.70 , with a mean of 1.4001 and a standard deviation of 5.22784 . The positive mean OPM indicates that, in general, firms are able to generate operating profits, although some firms experienced operating losses during certain periods. The standard deviation, which is relatively larger than the mean, indicates substantial variation in operating profitability across firms and across observation years.

The Asset Growth variable has a minimum value of -0.95 and a maximum value of 35.20 , with a mean of 0.8492 and a standard deviation of 4.12216 . The negative minimum value indicates that some firms experienced a decline in total assets, while the relatively high maximum value reflects the presence of firms with significant asset expansion. The standard deviation exceeding the mean suggests that asset growth rates vary considerably across firms and fluctuate over the study period.

The Firm Value variable shows a minimum value of -10.00 and a maximum value of 22.25 , with a mean of 1.0245 and a standard deviation of 3.14320 . A mean PBV above one indicates that, on average, the market values the firms higher than their book values. The presence of negative minimum values and a relatively large standard deviation indicates substantial differences in market perceptions regarding firm performance and future prospects among the sampled firms.

The Capital Structure variable, measured by the Debt to Equity Ratio (DER), has a minimum value of -19.62 and a maximum value of 41.65 , with a mean of 0.7127 and a standard deviation of 4.86195 . A mean DER below one indicates that, on average, firms rely more on equity financing than on debt. The high maximum value and large standard deviation suggest considerable disparities in financing policies across firms, including the presence of firms with extremely high leverage levels.

Overall, the descriptive statistics indicate that the research data exhibit a wide range of values and a relatively high level of variability across all variables. This reflects the heterogeneity of financial characteristics among transportation and logistics sector firms during the observation period, thereby necessitating further empirical analysis to examine the relationships among the variables.

Classical Assumption Test Normality Test

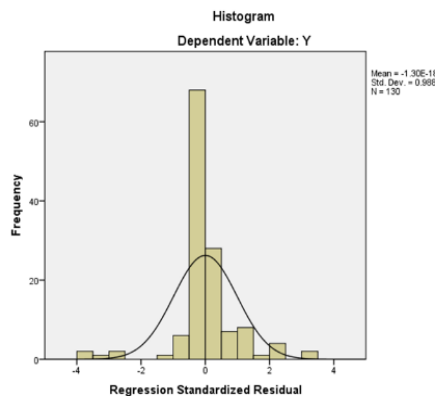


Figure 1.
Histogram Results

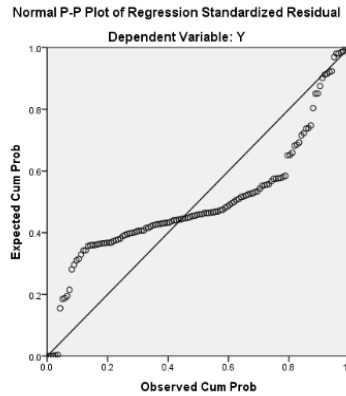


Figure 2.
Normal P–P Plot Results

Based on the results of visual analysis using Histogram Regression Standardized Residual, it is known that the residuals are distributed relatively symmetrically around zero and form a pattern that approximates a normal curve. In addition, observations on the Normal Probability–Probability (P–P) Plot show that most of the residual points are around and follow the diagonal line. The deviations that occur are small and limited to the tail of the distribution, thus not indicating a serious violation of the normality assumption. Therefore, it can be concluded that the residuals in the regression model satisfy the normality assumption, allowing the linear regression analysis to proceed.

Multicollinearity Test

A multicollinearity test is conducted to determine whether there is a high correlation between independent variables in the regression model. Multicollinearity can cause instability in regression coefficients and reduce the accuracy of parameter estimation.

Table 3.
Multicollinearity Test

Variable	Tolerance	VIF	Description
Operating Profitability (X1)	.692	1.446	No Multicollinearity
Asset Growth (X2)	.693	1.444	No Multicollinearity
Company Value (Y)	.997	1.003	No Multicollinearity

Based on the results of the multicollinearity test, it can be concluded that all variables in the research model have a Tolerance value above 0.10 and a VIF value below 10. This means that the regression model is declared to have no multicollinearity, so that the results of the regression analysis can be used as a basis for valid and reliable hypothesis testing and decision making.

Heteroscedasticity Test

The heteroscedasticity test aims to determine whether the residual variance in the regression model is constant. A regression model that meets the criteria has a homogeneous residual variance (homoscedasticity). The heteroscedasticity test is performed using the Glejser test, which regresses the absolute residual value against the independent variables of operational profitability (OPM), asset growth (Asset Growth), and debt structure (DER).

Table 4.
Heteroscedasticity Test

Variable	Sig	Limit	Description
Operating Profitability (X1)	.200	> 0,05	No Heteroscedasticity
Asset Growth (X2)	.619	> 0,05	No Heteroscedasticity
Company Value (Y)	.181	> 0,05	No Heteroscedasticity

Based on the test results, it is known that variable X1 has a significance value of 0.200, variable X2 has a value of 0.619, and variable Z has a value of 0.181. All significance values are greater than the significance level of 0.05. This means that there is no heteroscedasticity because the residual variance is constant and is not affected by changes in the value of the independent variable. This condition indicates that one of the classical assumptions of linear regression has been met, so that the regression model can be used for analysis.

Multiple Linear Regression Analysis and Moderated Regression Analysis (MRA)

Multiple linear regression analysis is used to determine the effect of the variables Operating Profit Margin (OPM), Asset Growth, and Debt to Equity Ratio (DER) on the dependent variable. In addition, variables are added to test the role of moderating variables in the relationship between independent variables and dependent variables. Moderated Regression Analysis (MRA) is used to test whether moderating variables strengthen or weaken the relationship between independent variables and dependent variables.

Table 5.
Results of Multiple Linear Regression and Moderated Regression Analysis (MRA)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.880	.234		3.762	.000
	OPM	.121	.085	.202	1.422	.158
	Asset Growth	-.095	.188	-.125	-.508	.612
	DER	.420	.049	.649	8.656	.000
	X1Z	-.155	.071	-.365	-2.179	.031
	X2Z	.088	.101	.219	.871	.385

Source: Data processed, 2026

Based on the analysis results table using SPSS version, the following results were obtained:

The constant value is positive at 0.880. This indicates a direct relationship between the independent variables, namely Operating Profit Margin (OPM), Asset Growth, and Debt to Equity Ratio (DER) as moderating variables. And if the result is considered constant or zero, then the value of the dependent variable is 0.880.

The OPM regression coefficient is positive at 0.121. This indicates that for every one-unit increase in OPM, assuming other variables remain constant, the dependent variable will increase by 0.121.

The Asset Growth regression coefficient is negative at -0.095 . This indicates that for every one-unit increase in Asset Growth, assuming other variables remain constant, the dependent variable will decrease by 0.095 .

The DER regression coefficient is positive at 0.420 . This indicates that for every one-unit increase in DER, assuming other variables remain constant, the dependent variable will increase by 0.420 .

The regression coefficient of OPM and the moderating variable DER is negative at -0.155 . This indicates that the DER variable weakens the effect of OPM on the dependent variable.

The regression coefficient of the interaction variable between Asset Growth and the moderating variable Z is positive at 0.088 . This indicates that the Z variable strengthens the relationship between Asset Growth and the dependent variable.

Hypothesis Testing

Partial Test (T-test)

Based on the regression test results, the Operating Profit Margin (OPM) variable has a significance value of 0.158 , which is greater than the significance level of 0.05 . This indicates that OPM has no effect on Price to Book Value (PBV). Therefore, the hypothesis stating that OPM affects PBV is rejected.

The test results show that the Asset Growth variable has a significance value of 0.612 , which is greater than 0.05 . This indicates that asset growth has no effect on PBV. Thus, the hypothesis stating that Asset Growth affects PBV is rejected.

The test results of the OPM variable on the DER moderation variable show a value of 0.031 , which is less than 0.05 with a negative regression coefficient. This indicates that DER significantly moderates the relationship between OPM and PBV in a weakening direction. Thus, the hypothesis that DER moderates the relationship between OPM and PBV is accepted.

The Asset Growth variable against the DER moderation variable has a significance value of 0.385 , which is greater than 0.05 . This indicates that DER is unable to moderate the effect of Asset Growth on PBV. Thus, the hypothesis that DER moderates the relationship between Asset Growth and PBV is rejected.

Simultaneous Test (F Test)

Table 6.
Simultaneous Test Results (F Test)
Anova

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	492.329	5	98.466	15.610	.000 ^b
	Residual	782.153	124	6.308		
	Total	1274.482	129			

Source: Data processed, 2026

Simultaneous test (F test) aimed to determine whether the variables Operating Profit Margin (OPM) and Asset Growth together have an effect on company value proxied by Price to Book Value (PBV). Based on the ANOVA test results, a calculated F value of 15.610 was obtained with a significance level of 0.000 . This significance value is smaller than the

significance criterion of 0.05. These results indicate that the OPM and Asset Growth variables simultaneously affect company value. Therefore, hypothesis H3 is accepted.

Determination Coefficient Test (R^2)

The determination coefficient (R^2) is used to measure the extent to which independent variables influence dependent variables.

Based on the test results, the R Square value is 0.386. This result shows that 38.6% of the dependent variable can be influenced by the independent variables in the study, namely OPM and Asset Growth. In addition, the Adjusted R Square of 0.362 shows that after adjusting for the number of independent variables and the number of research samples, the dependent variable is 36.2%. Therefore, 63.8% is explained by other factors outside the research model that were not included in the regression analysis.

The Effect of Operating Profitability (Operating Profit Margin) on Company Value

The research findings indicate that operating profitability, as measured by the Operating Profit Margin (OPM), has no effect on firm value, which is measured using the Price to Book Value (PBV). This result suggests that a company's ability to generate operating profits is not necessarily a primary factor considered by investors when assessing firm value in the transportation and logistics sector.

From the perspective of Signaling Theory, operating profit should serve as a positive signal to investors because it reflects operational efficiency and internal corporate performance. However, the findings of this study indicate that the signal conveyed by operating profitability is not sufficiently strong to influence market perceptions. This may be attributed to the characteristics of the transportation and logistics industry, which is subject to high levels of uncertainty, strong dependence on macroeconomic conditions, and significant fluctuations in operating costs. As a result, investors tend not to focus solely on short-term operating profits but instead consider risk factors and the long-term sustainability of the firm.

The findings of this study are consistent with those of Wardani and Zulkifli (2022), who reported that OPM has no significant effect on firm value. This similarity in results suggests that operating profitability is not necessarily a key indicator in the formation of firm value, particularly in sectors characterized by high volatility. Thus, the results reinforce the view that operating profit should be interpreted in conjunction with other financial factors in order to provide more meaningful signals to investors.

The Effect of Asset Growth on Company Value

The research findings indicate that asset growth has no effect on firm value. This result suggests that an increase in a company's total assets does not automatically enhance market perceptions of firm value. From the perspective of Signaling Theory, asset growth may be viewed as a signal of expansion and future growth prospects. However, the findings of this study indicate that investors do not always interpret asset increases as a positive signal. This may occur because asset growth that is not accompanied by improvements in efficiency and profitability can raise concerns regarding the effectiveness of asset utilization and the potential increase in operating burdens.

The findings of this study are consistent with those of Boenyamin and Santioso (2023), who reported that asset growth has no significant effect on firm value. This finding strengthens the argument that investors place greater emphasis on the quality of asset management rather than on the sheer magnitude of assets owned by a firm. Accordingly,

asset expansion without a corresponding improvement in actual performance does not necessarily lead to an increase in firm value in the eyes of the market.

The Simultaneous Effect of Operational Profitability and Asset Growth on Company Value

Based on the results of the simultaneous test (F-test), operating profitability (OPM) and asset growth jointly have a significant effect on firm value (PBV). The F-test significance value is below 0.05, indicating that the regression model is appropriate for explaining variations in firm value. These findings suggest that although OPM and asset growth do not have significant effects when tested individually, their combined influence plays a complementary role in determining firm value. Therefore, the effect of financial variables on firm value is not always linear or isolated, but rather collective and interactive in reflecting a firm's performance and future prospects.

Operating profitability reflects a company's ability to generate profits from its core business activities. Operating profit indicates the level of managerial efficiency in controlling costs and utilizing available resources. Meanwhile, asset growth represents the firm's expansion strategy and management's efforts to increase operational capacity and broaden business activities. Consequently, in making investment decisions, investors do not evaluate financial indicators in isolation but assess the company's overall financial condition. Investors value firms that are not only capable of generating profits but also possess sustainable growth strategies. Accordingly, the combination of operating profitability and asset growth provides more comprehensive information for assessing firm value than each variable considered individually.

Signaling Theory posits that financial information disclosed by firms serves as a signal for investors in evaluating corporate prospects. Operating profitability provides a signal regarding a firm's internal performance, while asset growth conveys information about the direction and strategy of future business development. When these signals are present simultaneously, investors obtain a more comprehensive picture of firm quality, leading to a stronger market response in terms of firm value.

The Role of Debt Structure in Moderating the Effect of Operating Profitability on Firm Value

The results of the Moderated Regression Analysis (MRA) indicate that the Debt to Equity Ratio (DER) significantly moderates the relationship between operating profitability and firm value in a weakening direction. This finding suggests that higher levels of corporate debt structure reduce the effect of operating profitability on firm value.

Trade-Off Theory explains that the use of debt provides benefits in the form of tax shields; however, excessive debt increases financial risk and the likelihood of financial distress. When firms exhibit high DER levels, investors tend to place greater emphasis on financial risk rather than on operating profits generated by the company. As a result, operating profit—which should serve as a positive signal—may lose its effectiveness or even be perceived negatively in influencing firm value.

These findings indicate that capital structure plays a crucial role in determining how operating performance is evaluated by the market. A non-optimal debt structure can weaken the effectiveness of profitability signals, leading investors to respond less favorably to operating profits as an indicator of increased firm value.

The Role of Debt Structure in Moderating the Effect of Asset Growth on Firm Value

The research findings indicate that debt structure, as measured by the Debt to Equity Ratio (DER), does not moderate the effect of asset growth on firm value. This result suggests that variations in a firm's debt level do not alter the relationship between asset growth and firm value (PBV).

Conceptually, asset growth is often perceived as an indicator of expansion and increased operational capacity, which is expected to enhance future firm performance. However, the findings of this study indicate that asset growth is not necessarily interpreted positively by investors. This is because the market does not focus solely on the magnitude of assets owned by a firm, but rather on the quality and effectiveness of asset utilization in generating economic value.

This condition may be attributed to the characteristics of the transportation and logistics sector, which is characterized by high capital requirements, intense competition, and significant exposure to operational risks. In this sector, asset expansion often requires long-term investments with relatively extended payback periods. Consequently, investors tend to be cautious in determining whether asset growth will translate into improved financial performance.

The results of this study indicate that asset growth is not a determining factor of firm value. Debt structure is unable to alter market perceptions of asset growth because investors place greater emphasis on a firm's ability to convert assets into sustainable revenues and profits. Therefore, the relationship between asset growth and firm value is complex and cannot be adequately explained by debt structure alone.

CONCLUSION

Based on the results of the analysis and discussion, it can be concluded that operating profitability (Operating Profit Margin) and asset growth (Asset Growth) do not have a significant partial effect on firm value (Price to Book Value). This finding indicates that operating profit and asset growth are not the primary factors considered by investors when evaluating firm value in the transportation and logistics sector. Furthermore, debt structure is proven to moderate the effect of operating profitability on firm value in a weakening direction, but it does not moderate the effect of asset growth on firm value. The results of the simultaneous test show that operating profitability and asset growth jointly influence firm value, suggesting that firm value is determined by a comprehensive combination of financial performance indicators rather than by a single financial metric.

The findings of this study highlight the importance of optimal capital structure management and effective asset utilization. Accordingly, firms should not focus solely on increasing operating profits or pursuing asset expansion. Debt usage must be carefully controlled to ensure that its benefits can be realized without increasing financial risk. In addition, a comprehensive analysis of financial performance and capital structure is essential for investment decision-making, particularly in companies operating in the transportation and logistics sector.

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