Determinants of Firm Value in the Coal Industry: Stock Price, Firm Size, Profitability, and Leverage 2021-2023

Luis Iskandar[1], Berliani Dwi Nur Arofah[2], Nurhana Dhea Parlina[3]
[1]Universitas Swadaya Gunung Jati, Cirebon, Indonesia, luisiskandar073@gmail.com
[2]Universitas Swadaya Gunung Jati, Cirebon, Indonesia, berlianiidna@gmail.com
[3]Universitas Swadaya Gunung Jati, Cirebon, Indonesia, nurhanadp@ugj.ac.id

Corresponding Author: nurhanadp@ugj.ac.id[3]

Abstract: This study had the aim to examine the influence of stock price, company size, profitability, along with leverage on firm value in coal mining sub-sector companies that are listed on the Indonesia Stock Exchange during 2021–2023 period. A quantitative method with a purposive sampling approach was employed, resulting in 51 observations from 17 companies. The variables analyzed include stock price (closing price), company size (SIZE), profitability (ROA), and leverage (DAR), with firm value proxied by the Price to Book Value (PBV) ratio. Data were analyzed through multiple linear regression with the assistance of IBM SPSS 25 software. The findings revealed that all independent variables collectively have a significant impact on firm value, with a coefficient of determination of 49.5%. However, on a partial basis, only profitability and leverage exhibit a significant influence, both showing a negative relationship with firm value. These findings highlight the importance of maintaining an efficient financial structure and closely monitoring internal financial performance to enhance firm value. This study offers practical insights for investors, corporate management, and regulators in understanding the key drivers of firm value within the coal mining industry.

Keywords: Stock Price, Firm Size, Profitability, Leverage, Firm Value

INTRODUCTION

Firm value is a fundamental metric for evaluating a company's performance and is a critical consideration for investors when making decisions. In finance, a high firm value typically indicates robust financial performance, effective business strategies, and strong market confidence in the company's future outlook (Rangkuti et al., 2020). Accordingly, it is imperative for corporate management, shareholders, and capital market regulators to understand the factors that influence firm value.

Among the factors that shape firm value, stock price is especially influential. The stock price embodies investors' expectations about a company's profit potential. Typically, when share prices rise, the firm's value increases correspondingly (Sitohang et al., 2019). In the coal mining industry, share price movements are largely driven by external forces such as global commodity price trends, government energy policies, and the worldwide shift toward

renewable energy. For example, in 2023, coal prices plunged by around 64% due to weakening global demand and broadening decarbonization efforts, which put considerable downward pressure on the stock prices of Indonesian coal mining companies (Setiawati, 2023).

Firm size is another variable that can influence firm value. In general, larger companies have access to more financial resources, which gives them greater competitive advantages, and tend to be more resilient to economic uncertainties (Endri et al., 2021). However, in the coal mining sector, sheer size alone does not guarantee financial stability. This is especially true if a large firm lacks adaptive strategies to cope with volatile commodity prices.

Profitability, often evaluated by Return-on-Assets (ROA), is also a critical determinant of firm value. Strong profitability signifies efficient use of assets to generate income and thereby bolsters investor confidence (Sari et al., 2021). Nevertheless, under certain conditions, declining coal prices and increasing operational costs can place significant pressure on the profitability of mining firms, thereby negatively affecting their overall firm value (Rhamadanty, 2024).

Leverage, typically evaluated by the "Debt-to-Asset Ratio (DAR)", also plays a critical role in a company's financial structure. Optimal use of debt can support firms in enhancing working capital and facilitating business expansion. However, an excessively high level of leverage may elevate financial risk, particularly in highly volatile industries such as mining (P. N. J. Putri & Hasibuan, 2023). In 2023, the decline in coal prices resulted in financial distress for several mining companies with high levels of debt, ultimately leading to a reduction in their firm value.

Prior research has produced mixed findings regarding how stock price, firm size, profitability, and leverage relate to firm value. Several studies have found that stock prices and profitability exert an influence that is positive on firm value (Nasih et al., 2019) ; (Dang et al., 2019), whereas other studies suggest that high leverage exerts a negative influence on firm value (Al-Najjar & Anfimiadou, 2012) ; (Franc-Dąbrowska et al., 2021). Additionally, firm size often emerges as an important control variable affecting market value, particularly in the mining and energy sectors (Parida & Madheswaran, 2021). In light of these considerations, the present study aims to provide empirical insight into the effects of stock price, firm size, profitability, and leverage on the firm value of coal subsector companies publicly traded on the IDX during 2021–2023 period.

The findings of this study are expected to contribute to investors in considering more effective investment strategies, to corporate management in optimizing the management of financial resources, and to regulators in formulating policies that better support the stability of the coal mining sector in Indonesia.

Theoretical Framework and Hypothesis Development
Signaling Theory by Spence (1973)

Explains that the information that a company disclosed can serve as a signal for investors in assessing its business prospects. A high stock price and increased profitability indicate strong corporate fundamentals, sound financial transparency, and stable growth potential, thus attracting investor interest. According to **Agency Theory** (Jensen & Meckling, 1979), there is a potential conflict of interest between the principal, namely the shareholders who aim to maximize firm value, and the agent, namely the management, who may be more focused on personal interests such as increasing compensation or expanding authority. The imbalance of information between the two parties can give rise to agency costs, which may result in reduced efficiency and a decline in firm value. Meanwhile, **the trade-off theory** (Modigliani & Miller, 1963) emphasizes the importance of maintaining a balance between debt and equity in a firm's capital structure. High leverage can provide benefits in the form of tax reductions through interest expenses, but on the other hand, it also increases financial risk,

especially if the firm is unable to meet its debt obligations. In capital-intensive industries such as mining, companies often rely on debt-based financing for expansion and acquisitions, and therefore must ensure that the level of leverage remains within safe limits to maintain financial stability and business sustainability.

Stock price is an indicator that can affect firm value. The higher the stock price of a company, the greater its perceived firm value in the eyes of investors and other stakeholders (Novita et al., 2022). A highly valued stock indicates that the firm's value is also increasing (Erianto & Pratiwi, 2025). Stock price reflects the ongoing market price or the closing price when the market has closed (Arita & Yusmardi, 2025). The study conducted by (Erianto & Pratiwi, 2025) is in line with the findings of (Arita & Yusmardi, 2025), which revealed that stock price shows an effect that is significant on firm value. In their study, it was found that a rise in stock price is a reflection of investor appreciation toward the company's prospects and performance. The findings of (Saputra, 2025) further strengthens the argument that high stock prices are often associated with the relevance of accounting information in assessing firm value. Therefore, it can be concluded that stock price is not merely a numerical figure in the capital market but also a reflection of investor confidence and the company's fundamental condition. Based on these arguments, the hypothesis proposed in this study is as follows:

H1: "Stock price has a positive effect on firm value."

Firm Size

Firm size refers to a dimensional indicator used to distinguish the overall scale of a business entity. It is generally evaluated based on the volume of assets, revenue performance, and market valuation. One common way to determine firm size is by calculating the total assets held by the enterprise. The SIZE variable is typically used to represent firm size and is assessed concerning price to book value (PBV) as noted by (Wicaksono & Fitriati, 2022). When a business operates on a larger scale, it often suggests robust expansion capacity and tends to experience fewer obstacles when attempting to access capital funding. Companies with greater size are also more likely to be perceived as reliable in delivering substantial financial returns to shareholders (Sofiatin, 2020). This view is supported by (Setiawan et al., 2021), who found that firm size contributes positively to enhancing firm value. From the insights discussed, this study's proposed hypothesis is:

H2: "Firm size has a positive effect on firm value."

Profitability

Profitability describes a firm's capability in generating earnings from its operations (Kasmir, 2019) The level of profit achieved serves as a reflection of how well the company allocates and utilizes its resources to improve financial outcomes. Strong profitability signals that a business is managing its assets and finances effectively, which enhances its appeal to potential investors due to the promise of long-term stability and growth. Research conducted by (Habsari & Akhmadi, 2018) found that ROA shows a correlation that is positive and significant with firm value in the mining sector. These findings are consistent with (Septiana & Zulkifli, 2024), who stated that firms with high profitability are more likely to have better market value because investors are more attracted to them. This is further backed by the study of (Trisnawati et al., 2024), revealed that profitability shows a noteworthy and favorable influence on firm value, as evident from growing investor engagement and appreciating stock prices. Solid profit performance tends to enhance the market's belief in a company's soundness, since it shows responsible financial governance and operational effectiveness. From the insights discussed, this study's proposed hypothesis is:

H3: "Profitability has a positive effect on firm value."

Leverage

According to (Kasmir, 2019), leverage refers to the use of funding sources that carry fixed charges, with the expectation of increasing returns for the owners of the company. Leverage is a reflection of the extent to which a company utilizes debt in its capital structure to finance its assets. Leverage, as measured with Debt-to-Asset Ratio (DAR), shows the degree to which a company finances its assets through debt. According to the study by (Batistuta et al., 2024), leverage significantly affects firm value, although in certain cases it may have a negative impact if the level of debt is excessively high. The study by (P. N. J. Putri & Hasibuan, 2023) also showed that companies with controlled leverage can enhance firm value through the productive use of debt. In contrast, previous findings by (A. S. Putri & Miftah, 2021) suggest that leverage may positively affect firm value as reflected in the price-to-book ratio. From the insights discussed, this study's proposed hypothesis is: H4: "Leverage affects firm value."

Value of Firms

The value of firms operating in the coal mining subsector and publicly traded on the IDX is affected by several factors, including stock price, firm size, profitability, and leverage. Stock price is generally seen as a representation of investor perception regarding the firm's future prospects, where upward movements in stock price often correspond to enhanced firm value. In addition, a larger firm scale shows stronger financial stability and higher competitiveness within the industry. Profitability serves as a key indicator in assessing the company's effectiveness in managing its assets to generate profit. One of the commonly used measures is **Return-on-Assets (ROA)**, which indicates how effectively a company's assets are utilized to generate profit. On the other hand, leverage measured by the **Debt-to-Asset Ratio (DAR)** reflects the proportion of debt within the company's total assets. If leverage is excessively high, the company's financial risk may increase, potentially affecting firm value. In line with this, this study's proposed hypothesis is:

H5: "Stock price, firm size, profitability, and leverage jointly have a significant effect on firm value."

METHOD

This study's scope of population covered all coal mining enterprises operating within the subsector that were officially publicly traded on the IDX throughout 2021 to 2023. The method used for taking samples was purposive sampling, which was a technique for selecting samples based on certain considerations aligned with the objectives of the study. According to (Sugiyono, 2013), purposive sampling was a sampling technique based on specific criteria established by the researcher, such as data availability and relevant population characteristics. In addition, referring to the guideline by Roscoe (1975), an appropriate sample size for causal-comparative or correlational research ranged from 30 to 500 samples, and if the population was relatively small, a minimum sample size of 30 units was considered sufficient for statistical analysis. Based on these considerations, this study formulated purposive inclusion criteria as follows:

Table 1. Criteria for Sample Determination

NO	CRITERIA	TOTAL
1	Identified companies engaged in the coal subsector and officially publicly traded on the Indonesia Stock Exchange (IDX) from 2021 to 2023	26
2	Companies were excluded due to the incomplete publication of financial statements during the observation period	(6)

3	Companies whose financial reports were not denominated in United States Dollars (USD)	(3)
4	Final number of companies selected based on the established criteria	17
	Duration of the observation period	3 years
	Total firm-year observations used in the study (17 companies × 3 years)	51

Source: Processed by the author, 2024

Quantitative data was used for this study, with the data sourced from secondary means. The secondary data comprised financial records extracted from audited annual reports that were made publicly available on the official IDX platform during the 2021 to 2023 period, which could be accessed on www.idx.co.id. For the purpose of data processing and statistical computation, the software utilized in this research was IBM SPSS version 25. The analytical approach involved a series of classical statistical diagnostics, which encompassed normality testing, multicollinearity checking, heteroscedasticity evaluation, regression modeling, and assessment of the coefficient of determination. Furthermore, the hypothesis testing procedures incorporated both the t-test and the coefficient of determination as key evaluative metrics.

This study's dependent variable was Firm Value, which was measured using Price to Book Value (PBV). Whereas the independent variables included Stock Price, Firm Size, Profitability, and Leverage. The specifications for each variable are explained below.

Table 2. Operational Definition of Variables

No	Indicator	Definition	Measurement	
1	Firm Value	"A ratio used to measure the market value of stock relative to the company's book value. Used as an indicator of firm value."	$PBV =$	$\dfrac{Stock\ Price}{Book\ Value\ per\ Share}$
2	Stock Price	"The closing stock price at the end of the trading session, reflecting the company's current market value."		$Closing\ Price$
3	Firm Size	"Measured based on the company's total assets, typically using the natural logarithm to stabilize the data."	$SIZE =$	$LN\ (Total\ Assets)$
4	Profitability	"A profitability ratio used to assess the efficiency of a company in generating profit from total assets."	$ROA =$	$\dfrac{Net\ Income}{Total\ Assets}$
5	Leverage	"A leverage ratio that indicates the proportion of assets financed by debt."	DAR	$\dfrac{Total\ Debt}{Total\ Assets}$

Source: Author (2024)

RESULTS AND DISCUSSION
Classical Assumption Test
Normality Test

In accordance with (Ghozali, 2018), the normality test using the Kolmogorov-Smirnov method was employed to ensure the normal distribution of the residual variable in the regression model. If the Asympt. Sig (2-tailed) value exceeded 0.05, the residual was considered normal, whereas if it was ≤ 0.05, the residual was not normally distributed. This test was important to ensure the validity of the regression results.

Table 3. Kolmogorov-Smirnov Normality Test Results

Variable	Kolmogorov-Smirnov	Criteria	Description
Asmpy Sig (2-tailed)	0.200	> 0.05	Data are normally distributed

Data References: Generated from SPSS, 2024

The One-Sample Kolmogorov-Smirnov test results, as presented on Table 3, indicate that the Asymp. Sig. (2-tailed) value was 0.200. Given that this value exceeds the threshold of 0.05, a conclusion can be drawn that this study's data followed a distribution that is normal. Multicollinearity Test. As referenced in (Ghozali, 2018), the primary objective of the multicollinearity evaluation is to determine whether any strong linear interdependence exists among the predictor variables in the regression equation. Such interdependence can potentially compromise the accuracy of the regression estimations. The indicators utilized in this assessment are the Tolerance value as well as the Variance Inflation Factor (VIF). If all independent variables yield a Tolerance level above 0.10 and a VIF below 10, then the model is considered free from collinearity complications.

Table 4. VIF and Tolerance Metrics for Multicollinearity Assessment

Explanatory Variable	Tolerance Value	VIF Statistic	Diagnostic Conclusion
STOCK PRICE	0.897	1.114	Multicollinearity not detected
FIRM SIZE	0.917	1.091	Multicollinearity not detected
PROFITABILITY	0.891	1.122	Multicollinearity not detected
LEVERAGE	0.883	1.133	Multicollinearity not detected

Data References: Generated from SPSS, 2024

Based on the findings from the multicollinearity test, the obtained Tolerance values were evaluated against the lower threshold of 0.10, and the VIF values were compared with the upper limit of 10, as recommended by (Ghozali, 2018). The results indicated that all independent variables in the model had Tolerance values that exceed 0.10 with VIF scores falling below 10. As the Tolerance levels were above the minimum acceptable value and the VIFs remained under the critical limit, it can be inferred that in this regression model, multicollinearity was not present. This outcome implies that the independent variables are not highly linearly associated with one another; therefore, no significant redundancy exists among them. Consequently, the regression model is considered statistically sound and may be used in further analyses to more precisely identify the individual contributions of the independent variables to the dependent variable's variation.

Autocorrelation Test (Cochran-Orcutt Test). The autocorrelation test was used to assess whether serial correlation occurred among the residuals of the regression equation. According to (Ghozali, 2018), the Cochran–Orcutt method was adopted as a corrective procedure for addressing autocorrelation issues in linear regression analysis. This technique involves transforming the research data into a lagged form, thereby shifting the values to account for time-based dependencies and mitigating the effect. The test was performed by analyzing the Durbin–Watson (DW) statistic in comparison with the upper and lower critical bounds (dU and dL). If the resulting DW value is situated between dU and 4 minus dU (4−dU), a conclusion can be drawn that the residuals are free from autocorrelation, and thus the regression model meets the assumption of error independence.

Table 5. Autocorrelation Diagnostics via Durbin–Watson Statistic

Pearson's R	Coefficient of Determination (R^2)	Adjusted R^2	Durbin–Watson Index	Diagnostic Conclusion
0.704	0.495	0.450	1.833	Autocorrelation Not Detected

Data References: Generated from SPSS, 2024

In this study, the Cochran–Orcutt procedure was implemented to correct for autocorrelation within the regression model, particularly in the context of coal subsector firms over the 2021 to 2023 period. This technique functions by re-estimating the model using lagged variables, which necessitates the exclusion of the initial observation, thereby reducing the number of valid cases from 51 in total to 50. Despite the resulting decrease in sample size, the method was retained due to its effectiveness in enhancing the precision of coefficient estimates and improving the overall statistical robustness and validity of the model. After applying the correction, the Durbin–Watson (DW) statistic was calculated at 1.833. This value was then evaluated against the Durbin–Watson critical values, specifically the upper bound (dU) of 1.7214 as well as the corresponding upper limit of 4–dU, which equates to 2.2786. Since the DW value falls within the interval of 1.7214 < 1.833 < 2.2786, it can be inferred that the residuals exhibit no signs of autocorrelation. Accordingly, the use of the Cochran–Orcutt method effectively addressed the issue, confirming that the error terms are distributed randomly and do not follow a systematic pattern. Thus, the regression model is considered suitable for further inference, satisfying the classical assumption regarding the independence of residuals.

Heteroscedasticity Test (White Test). According to (Ghozali, 2018), the White test is performed by regressing the squared residuals on both the independent variables and their squared terms. The resulting R Square (R^2) value from this auxiliary regression is then multiplied by the total number of observations (N) to produce the test statistic. This statistic is subsequently compared to the Chi Square distribution's critical value at the appropriate degrees of freedom. With the test statistic lower than the critical Chi Square value, then the null hypothesis stating that there is no heteroscedasticity cannot be rejected. Consequently, the model is declared to satisfy the assumption of homoscedasticity and is thus appropriate for further statistical analysis.

Table 6. Heteroscedasticity Test Results

R	R^2	Adjusted R Square	Std. Error of the Estimate	Description
.413[a]	.171	-.016	.85546	Free from heteroscedasticity

Data References: Generated from SPSS, 2024

In accordance with the outcomes of the heteroscedasticity test conducted using the White method, the test showed that the R Square value was 0.171. By applying the N × R^2 approach, the result obtained was 50 × 0.171 = 8.55. This value was compared to the chi-square critical value at a significance threshold of 0.05 and a degree of freedom count of 9, which was 16.919. Because the computed value was below the chi-square threshold, the null hypothesis (H₀) could not result in rejection. This suggests that the model does not show heteroscedasticity. Therefore, the model was considered to satisfy the assumption of homoscedasticity and was deemed appropriate for further analysis.

Hypothesis Testing

According to (Ghozali, 2018), multiple regression refers to a quantitative analysis method used to assess the impact of more than one independent variable on a dependent variable. This model is applied in quantitative research to understand the relationship among variables and to estimate a dependent variable's value based on the existing independent variables. From a mathematical standpoint, multiple regression can be represented as the following:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Table 7. T-Test Results (Partial Test)

Variable	B	Std. Error	Beta	t	Sig.
STOCK PRICE	-1,16E-02	.000	-.159	-1.426	.161
FIRM SIZE	.016	.078	.023	.210	.835
PROFITABILITY	-2.021	.618	-.367	-3.272	.002
LEVERAGE	-2.284	.354	-.727	-6.452	.000

Data References: Generated from SPSS, 2024

The t-test outcomes are displayed on Table 6. From these results, the distinct influence of every independent variable on firm value is interpreted as follows:

The results of this study indicate that profitability (PROF) has a significant effect on firm value, with a significance value of 0.002 (<0.05). However, the negative regression coefficient (-2.021) indicates that an increase in profitability can actually reduce firm value. This finding contradicts the majority of previous studies such as (Habsari & Akhmadi, 2018) and (Trisnawati et al., 2024), which state that Return on Assets (ROA) has a positive relationship with firm value, because companies with high profitability are generally more trusted by the market. However, in the context of post-pandemic coal industry volatility, increased profitability may not reflect stable long-term prospects. This is supported by (Septiana & Zulkifli, 2024), who explained that the increase in profit could be due to momentary efficiency rather than sustainable growth. (Alawneh et al., 2025) also emphasized that in uncertain macroeconomic and environmental conditions, such as in the industrial sector in Jordan, profitability is not necessarily a guarantee of increasing firm value.

Furthermore, the leverage variable (LEV) also has a significant influence on firm value, with a Sig. value of 0.000 (<0.05) as well as a negative regression coefficient of -2.284. This indicates that the higher the leverage level, the lower the firm value. This finding aligns with the trade-off theory and backed by the study of (Franc-Dąbrowska et al., 2021) and (P. N. J. Putri & Hasibuan, 2023), which show that high leverage increases financial risk as well as reduces investor confidence in the long-term prospects of the company. Research by (Ndubuisi et al., 2025) also concluded that although debt can be used as an expansion tool, excessive use is negatively associated with shareholder value, especially in industries that have a high level of risk.

Meanwhile, stock price shows no significant effect on firm value, as indicated by a Sig. value of 0.161 (>0.05). This finding contradicts the study of (Novita et al., 2022), which concluded that stock price significantly affects the value of manufacturing companies in Indonesia. However, in the context of the coal industry, which is highly affected by external fluctuations such as global energy policy and ESG (environmental, social, and governance) trends, stock prices do not always reflect the intrinsic value of the company. (Haikal, 2025) explains that stock price volatility is often influenced by noise trading, market sentiment, and earnings shocks, which can be misleading in assessing firm value, especially in the commodity sector.

The firm size variable also shows no significant impact on firm value, indicated by a Sig. value of 0.835 (>0.05). Although (Setiawan et al., 2021) argue that firm size positively affects firm value in the mining sector, these results indicate that firm size is partially insufficient to explain firm value in the coal sector. Research by (Jahan, 2024) confirms that company size will only be relevant when combined with other variables such as liquidity and operational efficiency, so that under certain conditions, size alone is not sufficient to reflect the fundamental value of the company.

Table 8. Simultaneous Test Results (F Test)

Model	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.732	4	5.433	11.040	.000[b]
	Residual	22.146	45	.492		
	Total	43.878	49			

Data References: Generated from SPSS, 2024

The F test results are displayed on Table 7. From the analysis of variance (ANOVA), the calculated F-value is 11.040 with a Sig. level of 0.000. As stated by (Ghozali, 2018), a significance value below 0.05 suggests that the regression model, as a whole, has a statistically significant effect on the dependent variable. Since the significance level in this study is 0.000—well below the 0.05 threshold it can be concluded that the regression model effectively explains the combined influence of the independent variables (leverage, firm size, stock price, and profitability) on the dependent variable, which is firm value. Therefore, the regression model employed in this research is deemed valid and suitable for further analysis, as it demonstrates that the independent variables collectively have an impact that is significant on firm value.

Table 9. Results of the Determination Coefficient Test (R^2)

Model	R	R Square	Adjusted R Square
1	.704[a]	.495	.450

Data References: Generated from SPSS, 2024

The coefficient of determination test (R^2) results are shown in Table 8. From the output in that table, the R Square value is reported at 0.495, which suggests that 49.5 percent of the total changes in firm value can be accounted for by the explanatory variables in the model, which include leverage, firm size, stock price, and profitability. The remaining 50.5 percent is presumed to be influenced by other elements not captured by this regression structure. As explained by (Ghozali, 2018), the Adjusted R Square is a more accurate way to evaluate a regression model because it takes into account the number of variables being tested. This study's Adjusted R Square is 0.450, meaning the model still explains 45 percent of the variation in firm value, even after adjusting for the number of variables. The fact that the Adjusted R Square is slightly below the regular R Square shows that the model has been corrected to avoid being too complex or overfitted. Overall, the model does a fairly good job of showing how the independent variables impact firm value, although firm value might also be influenced by other factors outside the model that were not analyzed in this study.

CONCLUSION

The conduct of this research was to explore the factors that impact firm value in coal subsector companies publicly traded on the IDX from 2021 to 2023. The F test results indicated that the independent variables, which consist of stock price, firm size, profitability, and leverage, together influenced firm value, with a coefficient of determination of 49.5 percent. In other words, nearly half of the variation in firm value could be explained by these four factors. Further analysis using the t-test showed that only leverage and profitability had a statistically significant impact on firm value, and both variables were found to have a negative relationship. On the other hand, stock price and firm size were found to have a positive influence, but their effects were not statistically significant in this study.

This study's findings suggest that investors should carefully consider a company's financial reports, especially concerning its leverage and profitability levels, before making investment decisions. From a managerial standpoint, managing leverage efficiently is crucial to prevent adverse effects on firm value. Moreover, while profitability is commonly seen as a factor that supports firm value, this research shows that under certain circumstances, higher

profitability might actually lead to a reduction in firm value. As a result, companies are encouraged to adopt better financial strategies to promote steady and long-term growth in firm value.

This study acknowledges certain limitations, particularly in terms of its sample scope, which was confined to coal subsector companies observed during the 2021 to 2023 period. Therefore, the findings may not be generalizable to other sectors or longer time periods. In addition, this study did not include external factors such as government policy and macroeconomic conditions, which also have the potential to affect firm value. The research model used in this study still has limited predictive power. Hence, future studies are recommended to incorporate a greater variety of independent variables, expand the industry coverage, and consider external factors to enhance the accuracy and relevance of the research findings.

REFERENCES

Al-Najjar, B., & Anfimiadou, A. (2012). Environmental Policies and Firm Value. *Business Strategy and the Environment*, *21*(1), 49–59. https://doi.org/10.1002/bse.713

Alawneh, A. M., Shawaqfeh, G. N., Shehab, S. T. M., & Al-Attar, M. K. (2025). The Impact of Financial Modeling on Profit Growth in the Jordanian Industrial Sector: a Pathway to Sustainable Industry. *Journal of Lifestyle and SDGs Review*, *5*(3), e05608. https://doi.org/10.47172/2965-730X.SDGsReview.v5.n03.pe05608

Arita, E., & Yusmardi, R. (2025). Pengaruh Kebijakan Dividen, Kebijakan Hutang, Keputusan Investasi Dan Harga Saham Terhadap Nilai Perusahaan. *Jurnal Akuntansi Keuangan Dan Perpajakan*, *1*(03), 528–546.

Batistuta, I. U., Munandar, A., & Pratiwi, A. (2024). Pengaruh Profitabilitas, Leverage, likuiditas, Ukuran Perusahaan dan Struktur Aset Terhadap Nilai Perusahaan. *ECo-Buss*, *7*(1), 575–587. https://doi.org/10.32877/eb.v7i1.1517

Dang, H. N., Vu, V. T. T., Ngo, X. T., & Hoang, H. T. V. (2019). Study the Impact of Growth, Firm Size, Capital Structure, and Profitability on Enterprise Value: Evidence of Enterprises in Vietnam. *Journal of Corporate Accounting & Finance*, *30*(1), 144–160. https://doi.org/10.1002/jcaf.22371

Endri, E., Supeni, M. I. R., Budiasih, Y., Siahaan, M., Razak, A., & Sudjono, S. (2021). OIL PRICE AND LEVERAGE FOR MINING SECTOR COMPANIES IN INDONESIA. *International Journal of Energy Economics and Policy*, *11*(4), 24–30. https://doi.org/10.32479/ijeep.11237

Erianto, & Pratiwi, A. P. (2025). PROFITABILITAS BERPERAN SEBAGAI MODERATING VARIABEL : PENGARUH STRUKTUR MODAL DAN HARGA SAHAM TERHADAP FIRM VALUE (STUDI EMPIRIS PADA PERUSAHAAN SUB SEKTOR PERBANKAN DI BURSA EFEK INDONESIA TAHUN 2018-2022). *Jurnal Nusa Akuntansi*, *2*(1), 74–98.

Franc-Dąbrowska, J., Mądra-Sawicka, M., & Milewska, A. (2021). Energy Sector Risk and Cost of Capital Assessment—Companies and Investors Perspective. *Energies*, *14*(6), 1613. https://doi.org/10.3390/en14061613

Ghozali, I. (2018). *Aplikasi Analisis Multivariate dengan program IBM SPSS 25* (Edisi 9). Badan Penerbit Universitas Diponegoro.

Habsari, A., & Akhmadi, A. (2018). UKURAN PERUSAHAAN, PROFITABILITAS DAN NILAI PERUSAHAAN: STUDI EMPIRIK: PERUSAHAAN SEKTOR PERTAMBANGAN YANG TERDAFTAR DI BURSA EFEK INDONESIA PERIODE 2011 SAMPAI DENGAN 2015). *Tirtayasa Ekonomika*, *13*(2), 300. https://doi.org/10.35448/jte.v13i2.4316

Haikal, F. (2025). The Impact Of Trading Volume , Leverage , Earning Volatility , Firm Size

, And Dividend Yield On Stock Price Volatility. *Jurnal Maneksi*, *14*(01), 194–204. https://doi.org/10.31959/JM.V14i1.2861

Jahan, K. (2024). *The Determinants of the Capital Structure of Listed Companies in Bangladesh : An Assessment of Total Factor Productivity*. September. http://reposit.library.du.ac.bd:8080/xmlui/xmlui/handle/123456789/4067

Jensen, M. C., & Meckling, W. H. (1979). Theory of the firm: Managerial behavior, agency costs and ownership structure. *ECONOMICS AND SOCIAL INSTITUTIONS*, *3*(4), 163–231. http://linkinghub.elsevier.com/retrieve/pii/0304405X7690026X

Kasmir. (2019). *Analisi Laporan Keuangan* (Edisi Revi). PT RAJAGRAFINDO PERSADA.

Modigliani, F., & Miller, M. H. (1963). The Cost of Capital, Corporation Finance and the Theory of Investment. *American Economic Association*, *48*(3), 261–297.

Nasih, M., Harymawan, I., Paramitasari, Y. I., & Handayani, A. (2019). Carbon Emissions, Firm Size, and Corporate Governance Structure: Evidence from the Mining and Agricultural Industries in Indonesia. *Sustainability*, *11*(9), 2483. https://doi.org/10.3390/su11092483

Ndubuisi, O., Henry, W. O., & Fred, H. F. V. (2025). Firm Attributes and Share Price of Quoted Firms in Nigeria: Analysis of Investors' Evaluations of Financial and Non-Financial Sectors. *Research Journal of Management Practice*, *5*(January). https://doi.org/10.5281/zenodo.14845630

Novita, H., Samosir, R. C., Rutmia, Sarumaha, K., & Saragih, E. (2022). PENGARUH HARGA SAHAM, UKURAN PERUSAHAAN, PROFITABILITAS, DAN LEVERAGE TERHADAP NILAI PERUSAHAAN MANUFAKTUR YANG TERDAFTAR DI BEI TAHUN 2018-2020. *Akurasi : Jurnal Studi Akuntansi Dan Keuangan*, *5*(1), 77–86. https://doi.org/10.29303/akurasi.v5i1.150

Parida, M., & Madheswaran, S. (2021). Does ownership matter? Empirical evidence from the performance of Indian state and private coal mining companies. *Resources Policy*, *74*, 102388.

Putri, A. S., & Miftah, D. (2021). Pengaruh Intellectual Capital, Leverage, Profitabilitas, Dan Likuiditas Terhadap Nilai Perusahaan. *CURRENT: Jurnal Kajian Akuntansi Dan Bisnis Terkini*, *2*(2), 259–277.

Putri, P. N. J., & Hasibuan, H. T. (2023). The Effect of Profitability, Firm Size, and Environmental Performance on Firm Value (Studies in Mining Companies Listed on the Indonesia Stock Exchange in 2017-2020). *American Journal of Humanities and Social Sciences Research*, *07*(01), 56–63. www.ajhssr.com

Rangkuti, M. M., Bukit, R., & Daulay, M. (2020). the Effect of Intellectual Capital and Financial Performance on Firm Value With Return on Investment As a Modeling Variable in the Mining Industry Listed on Indonesia Stock Exchange. *International Journal of Public Budgeting, Accounting and Finance (IJPBAF)*, 274–282. https://core.ac.uk/download/pdf/276546794.pdf

Rhamadanty, S. (2024). *Kinerja Perusahaan Tambang dan Energi Merosot di 2023, Cermati Pemicunya*. Kontan.Co.Id. https://amp.kontan.co.id/news/kinerja-perusahaan-tambang-dan-energi-merosot-di-2023-cermati-pemicunya

Saputra, D. A. (2025). THE COMBINED IMPACT OF HIGH DEBT LEVELS AND NEGATIVE EARNINGS ON THE VALUE RELEVANCE OF ACCOUNTING INFORMATION. *Jurnal Riset Ekonomi*, *4*(4), 989–1006. https://www.bajangjournal.com/index.php/Juremi/article/download/9509/7462

Sari, E. P., Rokhmawati, A. R., & Halim, E. H. (2021). The Effect of Return on Assets, Firm Size and Risk Management on Firm Value with Good Corporate Governance as a Mediation Variable (Empirical Study of Sharia Commercial Banks 2015-2019). *INTERNATIONAL JOURNAL OF ECONOMICS, BUSINESS AND APPLICATIONS*,

6(1), 41. https://doi.org/10.31258/ijeba.6.1.41-53

Septiana, A., & Zulkifli. (2024). Analisis Pengaruh Profitabilitas Dan Leverage Terhadap Nilai Perusahaan Dengan Ukuran Perusahaan Sebagai Variabel Moderasi. *Jurnal Riset Akuntansi Dan Bisnis*, *24*(1), 10–18. https://doi.org/10.30596/17716

Setiawan, D., Rohanda, I., & Abbas, D. S. (2021). Pengaruh Profitabilitas, Leverage, Ukuran Perusahaan, Struktur Modal Dan Net Profit Margin Terhadap Nilai Perusahaan. *Seminar Nasional Ekonomi Dan Bisnis*, *3*(1), 417–424.

Setiawati, S. (2023). *Harga Batu Bara Ambruk 64%, Sahamnya di RI Merah Berjamaah*. CNBC Indonesia. https://www.cnbcindonesia.com/market/20230712094021-17-453522/harga-batu-bara-ambruk-64-sahamnya-di-ri-merah-berjamaah

Sitohang, R. M., Suriawinata, I. S., & Gusliana, R. (2019). The Effect of Financial Performance on Stock Return in Coal Mining Companies Registered in Indonesia Stock Exchange. *Indonesian Journal of Business, Accounting and Management*, *2*(01), 53–64. https://doi.org/10.36406/ijbam.v2i2.598

Sofiatin, D. A. (2020). Pengaruh Profitabilitas, Leverage, Likuiditas, Ukuran Perusahaan Dan Kebijakan Dividen Terhadap Nilai Perusahaan. *Jurnal Ilmiah Akuntansi Dan Manajemen*, *1*(1), 47–57.

Sugiyono. (2013). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Alfabeta.

Trisnawati, A., Ummah, I., & Parlina, N. D. (2024). *Financial ratio and firm value : the role of firm size*. *23*(2), 284–295. https://doi.org/10.24123/jmb.v23i2.788

Wicaksono, B. T., & Fitriati, I. R. (2022). Pengaruh profitabilitas, leverage, ukuran perusahaan, dan likuiditas terhadap nilai perusahaan. *Fair Value: Jurnal Ilmiah Akuntansi Dan Keuangan*, *5*(2), 989–999. https://doi.org/10.32670/fairvalue.v5i2.2130