

The Influence of Green Accounting, Environmental Performance, and Firm Size on Firm Value

Fransiska Miranti^{1*}, Irawan², Endah Yuni Puspitasari³

Politeknik Negeri Lampung, Lampung, Indonesia^{1,2,3}

fransiskamiranti04@gmail.com¹, irawanpoli@polinela.ac.id², endah.akuntansi@polinela.ac.id³



Article History:

Received on 08 July 2025

1st Revision 10 July 2025

2nd Revision 15 July 2025

Accepted on 25 July 2025

Abstract

Purpose: This research investigates how green accounting, environmental performance, and company size impact the firm value of manufacturing companies in the basic materials sector. The study uses data from the Indonesia Stock Exchange (IDX) for the 2017–2023 period to explore the influence of these factors on investor perception.

Methodology/approach: This study employs a quantitative, causal research design. Using purposive sampling, a sample of 16 companies was selected, yielding 112 panel data observations. The analysis was conducted using multiple linear regression in SPSS 25 on secondary data from annual reports, financial statements, and PROPER ratings.

Results/findings: Although green accounting, environmental performance, and company size are proven to have a significant simultaneous effect on firm value, only green accounting and company size show a positive partial effect. Furthermore, the model has limitations, as the 12.2% Adjusted R² value implies that other unexamined factors play a much larger role in determining firm value.

Conclusion: This study aimed to examine the effect of green accounting, environmental performance, and company size on firm value in manufacturing companies in the basic materials sector. The results show that green accounting and company size have a positive and significant impact on firm value, while environmental performance does not show a significant effect.

Limitations: The study is limited to the basic materials sector and does not include other variables such as profitability, liquidity, or corporate governance, which may also affect firm value.

Contribution: This research adds to the fields of environmental accounting and corporate finance by empirically showing how sustainability and firm traits can boost company value.

Keywords: *Company Size, Environmental Performance, Firm Value, Green Accounting, Sustainability*

How to Cite: Miranti, F., Irawan, I., Puspitasari, E, Y. (2025). The Influence of Green Accounting, Environmental Performance, and Firm Size on Firm Value. *Jurnal Akuntansi, Keuangan, dan Manajemen*. 7(1), 389-403.

1. Introduction

In conducting their business operations, companies are required to generate profits and enhance firm value amid rapid growth and development (Ramadhani, 2023). Firm value is often used as an indicator of business success and investment attractiveness, as it reflects public confidence in the long-term prospects of a business (Martono & Harjito, 2005). When a company's value continues to increase, it becomes easier to gain investors' trust regarding the sustainability of its business. Manufacturing companies in the basic material sector serve as the backbone of the national industry. This sector supplies essential raw materials, such as metals, cement, and chemicals, which are crucial for many other industries.

However, in the pursuit of profit, many companies in this sector still fail to consider the environmental impact of their operational activities (Hadjoh & Sukartha, 2013; Widiastuti, Utami, & Handoko, 2018). One example is the air pollution case involving PT Rayon Utama Makmur in Sukoharjo in 2018, which triggered public protests and drew national attention (Walhi, 2022). This incident illustrates that environmentally unfriendly production activities can damage a company's reputation and reduce public trust in the company. The implementation of effective and environmentally friendly management of hazardous and toxic waste (B3) remains a major challenge in Indonesia.

According to data from the Ministry of Environment and Forestry (KLHK) in 2021, of the 60 million tons of B3 waste generated, primarily from the manufacturing industry, more than 80% has the potential to be reused. This situation requires companies to pursue profits and take responsibility for their environmental sustainability. One solution to this challenge is the adoption of green accounting, an accounting system that incorporates social and environmental impacts into a company's financial reporting (Ikhsan, 2008). The implementation of green accounting prevents environmental degradation and strengthens a company's positive public image. According to Marota (2017), green accounting provides added value to companies, both socially through improved reputation and economically through increased consumer loyalty and investor interest.

Prior research has debated the impact of green accounting on firm value. For example, Tampubolon (2022) reported a positive influence, whereas Kumala and Priantilianingtiasari (2024) found no significant effect, arguing that the market has not yet fully responded to environmental-cost disclosures. This study aims to fill this gap by focusing on the basic material subsector, particularly because research explicitly combining green accounting, environmental performance, and firm size in this subsector remains limited. In addition to green accounting, corporate environmental performance is an important concern. Environmental performance indicators, such as the PROPER program by KLHK, provide signals to the public regarding a company's environmental responsibility. Companies with good environmental performance are perceived as more accountable and may experience an increase in their firm value (Yuliani & Prijanto, 2022). However, Amira and Siswanto (2022) found that environmental performance does not necessarily influence firm value directly if it is not disclosed transparently in annual reports. This underscores the importance of investigating how investors perceive environmental signals from PROPER ratings, particularly in sectors with a high ecological impact.

The main distinction of this study compared with previous research lies in its sectoral focus, timespan, issue context, and practical urgency. This study specifically examines the basic material subsector, comprising basic and chemical industries, which contributes significantly to environmental pollution but remains underexplored in relation to green accounting and environmental performance. Moreover, the observation period from 2017 to 2023 provides a more comprehensive medium-term trend than earlier studies that generally used single-year data. This study was also conducted in the context of heightened environmental urgency in the post-pandemic period, particularly concerning the suboptimal management of B3 waste in the manufacturing sector. In addition to its theoretical contributions, this study emphasizes the importance of transparent environmental disclosure for investors and regulators in assessing corporate sustainability and long-term firm value.

Previous studies have widely examined the effects of green accounting and environmental performance on firm value; however, several gaps remain. First, most prior research, such as Septiana and Sundari (2024), focused only on two main variables and relied on very limited observation periods—often only one year—thus failing to capture medium-term dynamics that may influence firm value. Second, the sectoral focus in previous studies has been dominated by the mining sector, as seen in (Parastuti, Puspita, & Purnamawati, 2025), while the basic material sector, which also has substantial environmental impact, remains underexplored. Third, many studies have not incorporated the post-pandemic context and the surge in B3 waste, which poses current challenges for companies, particularly regarding environmental cost management and transparency in reporting. Fourth, the relationship between environmental disclosure and market perception or investor decision-making remains insufficiently examined, even though such factors are crucial in determining firm value in the era of Environmental, Social, and Governance (ESG) reporting, which has become a central focus in business

practices and plays an important role in measuring corporate sustainability performance (Oktaria & Sari, 2024).

2. Literature Review and Hypothesis Development

2.1 Literature Review

The main theoretical foundation underlying this relationship is Spence's ((Spence, 1973) Signaling Theory, which explains that companies send signals to investors by disclosing corporate information, including environmental activities. Essentially, the signals provided by management through their decisions influence the company's future sustainability, and these signals become a basis for investors in evaluating the firm (Kodriyah, Mahardini, Malik, & Wulandari, 2025). In an environmental context, positive and transparent disclosures, such as green accounting reporting or PROPER achievements, signal that the company is committed to sustainability and social responsibility.

The more transparent and positive the signals, the greater the investor's confidence, which in turn increases firm value. Furthermore, businesses can act as key drivers of the transition toward a green economy because of their inherent orientation toward long-term sustainability and close engagement with local communities (Karimullah, 2024). Prior studies show that environmental disclosures in annual reports can influence investor perceptions and reduce information asymmetry between management and investors, thereby affecting investment decisions and perceived risks. Purbaningsih (2024) found that companies that actively disclose green accounting information tend to achieve higher firm value due to their responsible environmental practices. This indicates that transparency in environmental matters not only enhances corporate reputation but also provides economic value.

Green accounting is defined as an accounting system that integrates social and environmental aspects into a company's financial reporting (Lako, 2015). This practice includes the recognition and reporting of costs directly related to environmental protection and management, such as waste treatment, resource conservation and emission control. In other words, green accounting enables companies to evaluate not only financial profit but also the environmental impact of their operations as part of their cost considerations and strategic planning. Okta, Suaidah, and Antasari (2022) explain that environmental cost disclosure contributes positively to investor perceptions and firm value. Similarly, Lalo and Hamiddin (2021) emphasize that companies that consistently and transparently disclose environmental costs gain higher market trust. Their financial performance also tends to be more stable, and stock returns increase because the market views environmental responsibility as an indicator of good managerial quality. Thus, green accounting serves as a reporting tool and a strategic mechanism for creating sustainable value in the capital market.

Environmental performance is also an important factor influencing investor perceptions and firm value. In Indonesia, public awareness regarding health and environmental preservation has increased significantly in recent years (Nuraini, Muzakir, Ponirin, & Buntuang, 2025). Corporate environmental performance is generally assessed using the PROPER rating (Program for Pollution Control, Evaluation, and Rating) issued by the Ministry of Environment and Forestry (KLHK). PROPER provides classifications ranging from black, red, blue, green, to gold, indicating the extent of a company's compliance and commitment to environmental management. These ratings serve as objective indicators of a firm's environmental sustainability performance.

Rahayu, Firmansyah, Perwira, and Saputro (2022) and Muqorobin and Simamora (2025) demonstrate that companies with higher PROPER ratings (gold or green) tend to have higher firm values than those with lower ratings. This is because the market views PROPER ratings as a representation of a company's credibility in complying with regulations and maintaining ecological balance, which strengthens its reputation and investor trust. In addition, signaling a company's environmental performance aims to attract investor interest to invest in the company (Amri, 2024). Thus, PROPER functions as an external signaling instrument that reflects a company's internal success in fulfilling its social and environmental responsibility.

On the other hand, firm size is also considered a moderating factor that influences the effect of environmental disclosure on firm value. According to Riyanto (2001), firm size reflects a company's capacity to manage resources, reach broader markets, and access financing. Larger firms generally have more structured organizations and better reporting systems, including the disclosure of financial and non-financial information. Consequently, large companies tend to be more transparent in reporting environmental and social aspects because they have greater public responsibility and are under stricter oversight from regulators and stakeholders than smaller companies.

Oktapriana, Bhuana, and Takrim (2023) support this notion, revealing that firms with substantial assets and public exposure tend to be valued more highly by the market when they actively disclose their environmental responsibilities. This suggests that firm size plays a crucial role in strengthening the effect of environmental disclosure on firm value (Singh, Sethuraman, & Lam, 2017). In this case, firm value is essential in determining stock value, as share prices tend to increase when firm value improves (Ariestantia, Yulistina, & Hasbullah, 2023). Despite the abundance of positive findings in the literature, several gaps remain unaddressed, particularly regarding the simultaneous role of the three variables (green accounting, environmental performance, and firm size) in influencing firm value within waste-intensive sectors such as basic materials. This study seeks to fill these gaps by adopting a more specific longitudinal and sectoral approach.

2.2 Development of Research Hypotheses

The initial step for companies to address environmental issues arising from their operational activities is the implementation of green accounting (Hamidi, 2019). Lestari and Khomsiyah (2023) show that green accounting significantly influences firm value. This influence stems from a firm's ability to allocate funds for environmental initiatives, which increases public trust because the company is perceived to be responsible for managing its environmental impact. This explanation aligns with signaling theory, which states that positive information disclosed by a company generates positive signals to investors, ultimately reflected in higher stock values and greater access to capital from financial markets (Cahyani & Imronudin, 2025). A similar study by Tampubolon (2022) supports this finding, revealing that environmental accounting significantly contributes to an increase in firm value. Therefore, green accounting can serve as an important indicator for investors to assess a firm's sustainability and environmental responsibility.

H1: Green accounting affects firm value.

Corporate environmental performance refers to a series of activities aimed at ensuring a safe, healthy, and sustainable environment by preventing, controlling, and reducing the negative impacts of operations (Lako, 2015). According to Sapulette and Limba (2021), good environmental performance is reflected in higher PROPER ratings, which indicate a company's success in fulfilling its environmental responsibility. Ramadhani (2023) also found that companies with higher PROPER ratings receive positive market responses, which in turn increases firm value.

H2: Environmental performance affects firm value.

Firm size reflects the total value of a company's assets, sales and equity. Larger firms tend to be more well-known to the public and have broader access to financing (Riyanto, 2001). According to Mirnawati and Dewi (2023), firm size can serve as a positive signal because larger companies are considered stable and credible. This increases investors' interest in large-scale firms, thereby raising their value.

H3: Firm size affects firm value.

Green accounting reflects a company's disclosure of environmental information to the public, environmental performance represents real efforts to maintain ecological sustainability, and firm size indicates the scale and capability of a business. These three variables are interconnected in shaping corporate reputation and stakeholder's trust. Nadila, Saputra, and Astuti (2025) show that green accounting, environmental performance, and firm size significantly influence firm value.

H4: Green accounting, environmental performance, and firm size simultaneously influence the firm's value.

3. Research Methodology

3.1 Type of Research

This research is a quantitative study using a quantitative approach aimed at testing the relationship between the independent and dependent variables. The analysis techniques employed include multiple linear regression and the coefficient of determination. This study is based on secondary data obtained through documentation (Waruwu, Puat, Utami, Yanti, & Rusydiana, 2025).

3.2 Population and Sample

3.2.1 Population

The population of this study consists of all basic material sector companies listed on the Indonesia Stock Exchange (IDX), totaling 109. The sampling technique used was purposive sampling, with the following criteria:

- Companies that were continuously listed from 2017 to 2023.
- Companies that published complete annual financial reports during that period,
- Companies that had a PROPER report or score for seven consecutive years.

3.2.2 Sample

Based on these criteria, 16 companies were selected. With seven years of observation, the number of research units was calculated as follows:

n : Number of Companies

N : Observation Period

$$n \times N = 16 \times 7$$

112 Companies

Thus, the total number of panel data observations in this study was 112.

3.3 Data Analysis Techniques

The regression test implemented in this study is multiple linear regression, which aims to examine both the simultaneous and partial effects of more than one independent variable, namely, green accounting (X_1), environmental performance (X_2), and firm size (X_3), on firm value (Y). The regression model is formulated using the following linear equation:

$$Y = a + b_1X_1 + c_1X_2 + d_1X_3 + \epsilon$$

Information:

Y = Firm value (Tobin's Q),

A = Constant (intersep),

b_1, c_1, d_1 = Regression coefficients of each independent variable,

X_1 = Green accounting,

X_2 = Environmental performance,

X_3 = Firm size,

ϵ = error term or residual.

Before conducting the multiple linear regression test, several classical assumption tests were performed to ensure that the regression model met the Best Linear Unbiased Estimator (BLUE) criteria, which include:

1. Normality Test, the normality test is conducted to determine whether the residuals in the regression model are normally distributed. This assumption is crucial because regression analysis assumes normally distributed residuals to ensure valid parameter estimations. Commonly used tests include the Kolmogorov-Smirnov (K-S) and Shapiro-Wilk tests. In the Kolmogorov-Smirnov test, the null hypothesis (H_0) states that the residuals were normally distributed. If $p\text{-value} > 0.05$, H_0 is accepted, meaning the residuals are considered normally distributed (Nastiti, Damayanti, & Madina, 2023).
2. Multicollinearity Test: This test aims to determine whether there is a high linear correlation among independent variables (X_1, X_2, X_3). In a multiple regression model, independent variables must not have strong collinearity, as this may distort the coefficient estimates and lead to incorrect conclusions. Multicollinearity was assessed using tolerance values and the Variance Inflation

Factor (VIF); if tolerance < 0.10 or $VIF > 10$, multicollinearity existed. If Tolerance > 0.10 and $VIF < 10$, multicollinearity does not exist. Although multicollinearity does not affect the predictive ability of the model, it can impact the stability and reliability of the regression coefficients. Researchers can address multicollinearity by removing highly correlated variables, transforming variables, or applying alternative regression techniques such as ridge regression (Mardiatmoko, 2020).

3. Heteroscedasticity Test

The heteroscedasticity test is used to detect whether the variance of the residuals (prediction errors) remains constant across all levels of the independent variables. Classical linear regression assumes homoscedasticity, meaning that the residuals have equal variances. Detection can be performed visually using a scatterplot of the predicted values (\hat{Y}) and residuals. If the points are randomly scattered without forming a specific pattern, the assumption of homoscedasticity is satisfied. If the plot forms a pattern such as a funnel (fan shape) or cone, heteroscedasticity is indicated (Nastiti et al., 2023).

4. Results and Discussion

4.1 Research Results

4.1.1 Descriptive Analysis

Descriptive analysis is a method used to provide a simple and informative summary of research data. The purpose was to identify the basic characteristics of the variables under study before conducting further statistical analysis.

Table 1. Descriptive Analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Green Accounting	99	.0150	1.5184	.503162	.2481364
Environmental Performance	99	3.00	5.00	4.4242	0.60762
Firm Size	99	20.2847	33.5729	29.055690	2.8700429
Firm Value	99	1.0500	3.2273	2.223239	.4376486
Valid N (listwise)	99				

Source: Data processed using SPSS 25 (2025)

Based on the results of the descriptive statistical analysis of 99 sample observations, an overview of the four research variables was obtained. The green accounting variable shows an average value of 0.0338, with a standard deviation of 0.114, indicating substantial variation among companies in allocating environmental costs relative to their net income. This also reflects that some companies continue to allocate environmental costs even when they experience losses. The environmental performance variable has an average value of 3.444 with a standard deviation of 0.65811, demonstrating that companies generally comply with environmental requirements at a fairly good level, and the variation in environmental performance across firms is relatively low. The firm size variable produces an average value of 30.00205 and a standard deviation of 1.41995, indicating that differences in asset size among companies are not highly significant. Meanwhile, the firm value measured by Tobin's Q has an average value of 1.0592 with a standard deviation of 0.29393, which suggests that, overall, companies are valued fairly well by the market, with relatively low variability in market valuations across firms.

4.1.2 Multiple Linear Regression Analysis

In this study, multiple linear regression was used to examine the influence of green accounting (X_1), environmental performance (X_2), and firm size (X_3) on firm value (Y), which was measured using Tobin's Q ratio.

Table 2. Multiple Linear Regression Analysis

Coefficients ^a					
		Unstandardized Coefficients	Standardized Coefficients		

Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-1.352	.732		-.1.848	.068
	Green Accounting	.579	.283	.195	2.044	0.44
	Environmental Performance	-.067	.058	-.133	-1.144	.256
	Firm Size	.089	0.28	.374	3.220	.002
a. Dependent Variable: Firm Value						

Source: Data processed using SPSS 25 (2025)

Based on the regression results, the multiple linear regression equation is as follows:

$$Y = -1,352 + 0,579X_1 - 0,067X_2 + 0,089X_3 + e,$$

According to the regression model, firm value (Y) is influenced by green accounting (X₁), environmental performance (X₂), and firm size (X₃). The model produced a constant value of -1.352, which mathematically represented the baseline firm value when all independent variables were zero. Although such a condition is unrealistic, the constant serves as an intercept in the model. The green accounting coefficient of 0.579 indicates a positive relationship, meaning that an increase in environmental cost allocation is associated with an increase in firm value. Conversely, the environmental performance coefficient of -0.067 shows a negative relationship, suggesting that improvements in environmental performance slightly reduce firm value, possibly because the costs incurred have not been fully appreciated by the market. Meanwhile, the firm size coefficient of 0.089 demonstrates a positive relationship, implying that larger firms generally have higher firm values due to stronger competitive advantages and higher investor confidence. A detailed interpretation of the regression coefficients is presented in the following table.

4.1.3 Simultaneous Test (F-Test)

The F-test (simultaneous test) in this study was applied to determine whether green accounting, environmental performance, and firm size collectively had a significant effect on firm value.

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.669	3	.556	5.546	.001 ^b
	Residual	9.526	95	.100		
	Total	11.195	98			

a. Dependent Variable: Firm Value

b. Predictors: (Constant), Firm Size, Environmental Performance, Green Accounting

Figure 1. Simultaneous F-Test

Source: Data processed using SPSS 25 (2025)

Based on the results, it can be concluded that the regression model used in this study is valid and suitable for further analysis. The F-test statistically indicates a significant joint influence of green accounting, environmental performance, and firm size on firm value in the basic materials manufacturing sector. This conclusion is supported by the calculated F-value (5.546), which is higher than the F-table value (2.70), and the significance level (0.001), which is far below the 0.05 threshold.

4.1.4 Partial Test (t-Test)

The t-test was used to examine each independent variable individually to determine its effect on the dependent variable by considering the t-statistical value and significance level (sig).

Table 3. Partial t-Test

Coefficients ^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.352	.732		-.1.848	.068
	Green Accounting	.579	.283	.195	2.044	0.44
	Environmental Performance	-.067	.058	-.133	-1.144	.256
	Firm Size	.089	0.28	.374	3.220	.002
a. Dependent Variable: Firm Value						

Source: Data processed using SPSS 25 (2025)

Based on the t-test results, two of the three independent variables had a significant effect on firm value. Green accounting ($t = 2.044$; $\text{sig} = 0.044$) and firm size ($t = 3.220$; $\text{sig} = 0.002$) both show a positive and significant influence, as their t-values exceed the t-table value (1.66105), and their significance levels fall below 0.05. Therefore, H1 and H3 are accepted in this study. In contrast, environmental performance ($t = -1.144$; $\text{sig} = 0.256$) did not have a significant effect, resulting in the rejection of H2.

Environmental performance does not significantly influence firm value because information related to companies' environmental efforts and achievements, such as PROPER ratings, has not been fully disclosed transparently in annual or sustainability reports. Consequently, investors and other stakeholders find it challenging to accurately assess the level of environmental commitment of companies. Furthermore, many firms undertake environmental programs to comply with regulatory requirements rather than integrate them into long-term strategic planning. This limits the ability of environmental initiatives to create strong or influential signals in the market. According to signaling theory, firm value increases when the market receives relevant, credible and positive information. However, such signals may not be effectively communicated through environmental-performance disclosures.

Additionally, investor awareness and sensitivity to environmental issues in the Indonesian capital market remain relatively low. Investors tend to focus more on financial indicators, such as profitability, stock returns, and revenue growth, rather than non-financial aspects, such as environmental performance. Consequently, even when firms achieve strong environmental outcomes, these efforts may not directly influence firm value from the market's perspective. In other words, environmental performance is not yet considered a primary factor shaping firm value because it has not demonstrated immediate or tangible economic benefits in the short term. The interpretation of the regression results for this study is as follows:

Table 4. Regression Interpretation

Variable	Regression Coefficient (B)	Sig.	Interpretation
Green Accounting	0,218	0,044	Has a positive and significant effect on firm value. Every increase in green accounting is followed by an increase in firm value.
Environmental Performance	-0,183	0,256	Has no significant effect. This is likely due to the lack of transparency in environmental disclosures and the limited attention given by investors to environmental information.
Firm Size	0,364	0,002	Has a positive and significant effect. Firms with larger total assets tend to have higher firm value.

4.1.5 Coefficient of Determination Test

The coefficient of determination test, particularly through the Adjusted R^2 value (Adjusted R-Square), is an important indicator of multiple linear regression analysis. This test aims to measure the extent to which the independent variables collectively explain the variation or changes in dependent variables.

The Adjusted R^2 ranges from 0 to 1. A value closer to 1 indicates that the regression model provides a stronger explanation of the relationship among variables, whereas a lower value suggests that factors outside the model may have a greater influence on the dependent variable.

The main difference between R^2 and Adjusted R^2 lies in their accuracy in accounting for the number of independent variables included. R^2 tends to increase with each additional variable, even when the added variable is statistically insignificant. Therefore, in studies that include more than one independent variable, Adjusted R^2 is preferred because it incorporates a penalty for model complexity and adjusts for the degrees of freedom. This makes the Adjusted R^2 a more objective measure of the model's explanatory power.

Model Summary ^b					
Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Durbin-Watson
1	.386 ^a	.149	.122	.3166650	1.879

- a. Predictors: (Constant), Firm Size, Green Accounting, Environmental Performance
- b. Dependent Variable: Firm Value

Figure 2. Coefficient of Determination Test
Source: Processed Data using SPSS 25 (2025)

The regression model demonstrated a relatively low explanatory power, with an adjusted R Square value of only 0.122. This indicates that green accounting, environmental performance, and firm size collectively explain only 12.2% of the variation in the firm value. The remaining 87.8% was influenced by other factors not examined in this study.

4.2 Research Discussion

4.2.1 The Influence of Green Accounting on Firm Value

Based on the results of the partial test (t-test), the calculated t-value of 2.044 was greater than the t-table value of 1.98525, with a significance level of 0.044, which was below the 0.05 threshold. This indicates that the green accounting variable has a significant partial effect on firm value; therefore, the alternative hypothesis (H_1) is accepted, and the null hypothesis (H_0) is rejected. These findings demonstrate that implementing green accounting—through the recognition, measurement, and disclosure of environmental costs—enhances investor and stakeholder perceptions of a company's sustainability commitment.

This suggests that corporate environmental responsibility is not merely symbolic but has economic value that contributes to increasing a company's market valuation. Furthermore, green accounting serves as a strategic instrument within corporate social responsibility (CSR) practices, producing ecological and financial benefits. When companies transparently allocate funds for waste management, resource conservation, or carbon emission reduction, they send a strong signal of environmental awareness and a long-term sustainability orientation. This aligns with Spence's (1973) signaling theory, which posits that information communicated by a company to the public influences economic decisions, including investment choices.

In this context, green accounting disclosures act as indicators of corporate accountability, indirectly shaping reputation, and strengthening market trust. These findings are consistent with prior studies conducted by Tampubolon (2022) and Safitri and Widiyati (2025), which similarly concluded that green accounting has a positive and significant influence on firm value. Therefore, green accounting is not only an internal reporting mechanism but has evolved into a strategic communication tool that enhances competitive advantage and strengthens the company's sustainable image in the eyes of investors and the public.

4.2.2 The Influence of Environmental Performance on Firm Value

Although this study uses the PROPER rating—an official indicator issued by the Ministry of Environment and Forestry (KLHK)—to assess corporate environmental performance, the statistical results indicate that this indicator does not significantly influence firm value. Based on the partial test

(t-test), the environmental performance variable has a significance value of 0.256, which exceeds the 0.05 threshold, and a t-value of -1.144 , which does not exceed the t-table value of 1.98525. Therefore, the second hypothesis (H_2) is rejected in this study. These findings suggest that within the basic material sector, the level of environmental compliance reflected in the PROPER rating is insufficient to influence the market or investor perceptions of firm value. This indicates a misalignment between the environmental performance standards set by regulators and the key considerations that investors use to assess corporate value.

Several factors may explain these findings. First, the disclosure of environmental performance information in corporate annual reports is relatively low. Many companies mention their PROPER achievements symbolically, without detailing concrete activities that demonstrate long-term commitment to environmental stewardship. As a result, investors do not receive strong signals to consider environmental performance in their investment decisions. Second, investor literacy regarding sustainability and ESG (Environmental, Social, and Governance) issues in Indonesia is still developing, leading investors to focus more heavily on financial indicators such as net income, EPS, and ROI. This is inconsistent with signaling theory, which states that positive information, such as strong environmental management, should act as a favorable signal that increases firm value.

However, if such information is not communicated clearly and strategically, the signal will fail to reach the market effectively. These findings are consistent with Pratiwi and Setyoningsih (2017), who concluded that high environmental performance does not automatically enhance firm value unless accompanied by transparent and systematic disclosure in corporate reporting. Therefore, companies must implement environmentally responsible practices and actively and strategically communicate these efforts to the public and investors to ensure that their environmental initiatives receive appropriate market recognition.

4.2.3 The Influence of Firm Size on Firm Value

The results of the partial test (t-test) indicate that firm size positively and significantly affects firm value. This is evidenced by the t-value of 3.220, which exceeds the t-table value of 1.98525, and a significance level of 0.002, which is well below the 0.05 significance threshold level. Thus, the third hypothesis (H_3) is accepted. These findings suggest that, within manufacturing companies in the basic material subsector listed on the Indonesia Stock Exchange during 2017–2023, larger companies, as measured by total assets, tend to have higher firm values in the eyes of investors and the capital market.

Companies with larger total assets typically possess several structural advantages, such as higher production capacity, better operational efficiency, greater access to external financing, and stronger resilience to competitive pressures. These conditions create a perception of stability and business durability, leading investors to view larger firms as more secure, credible, and capable of delivering promising and long-term growth. In the context of signaling theory, firm size can serve as a strong signal of a company's fundamental strength, which the market may rely on when making investment decisions. A large asset base signals operational sustainability, expansion capability and solid managerial capacity (Sari, Akhmadi, & Ichwanuddin, 2023).

These findings are consistent with Mirnawati and Dewi (2023), who found that firm size significantly influences firm value because it reflects financial strength and managerial capability. Larger firms tend to have stronger market visibility, communicate information more actively with investors, and adapt more effectively to external challenges. This reinforces the notion that firm size is not merely a quantitative measure but a strategic factor that shapes a firm's competitiveness and potential to create value in capital markets.

Firms that consistently apply green accounting practices, improve their environmental performance, and possess large-scale organizational capacity are more likely to build a strong positive image among investors and stakeholders. Green accounting demonstrates a company's commitment to social accountability and environmental sustainability by reporting environmental costs associated with waste management, energy efficiency, and emission reductions. Strong environmental performance reflects a

firm's capability to manage ecological impacts responsibly, which is a key indicator for regulators and the public. A large asset base further enhances the signals of financial stability and business sustainability, thereby increasing investor confidence.

Collectively, these three variables exert a significant influence on firm value, as evidenced by the F-test results, which show a significance level of 0.002 (< 0.05). This confirms that green accounting, environmental performance, and firm size jointly contribute to explaining the firm value. This finding supports the signaling theory, which states that the combination of these elements forms a positive signal interpreted by the market as an indication of sustainability and managerial professionalism. However, the model has limitations in terms of predictive strength. This is reflected in the relatively low adjusted R Square value of 0.122 (12.2%), indicating that 87.8% of the variation in firm value is explained by factors outside the model, such as profitability, capital structure, risk management, corporate governance quality, product innovation, or macroeconomic factors such as inflation and interest rates.

These limitations suggest that although the three independent variables significantly contribute to firm value, many other important aspects influence the overall corporate valuation. Therefore, future research should incorporate more comprehensive variables, including financial and non-financial indicators that are increasingly relevant in the era of sustainable business practice. This is in line with Fauziah and Kusuma (2025), who argue that although green accounting, environmental performance, and firm size collectively contribute to improving firm value, the model's explanatory power remains constrained by complex external factors that companies cannot easily control.

5. Conclusions

This study aims to analyze the influence of green accounting, environmental performance, and firm size on firm value in manufacturing companies within the basic materials subsector listed on the Indonesia Stock Exchange (IDX) during the 2017–2023 period. Based on the results of the multiple linear regression analysis, two of the three independent variables—green accounting and firm size—were found to have a significant partial effect on firm value. Environmental performance, as measured by the PROPER rating, did not significantly influence the results. These findings strengthen the theoretical contributions to the literature on signaling and agency theory. Green accounting serves as a positive signal to investors, reflecting a company's commitment to sustainability and transparency, which, in turn, enhances market confidence and strengthens corporate reputation. A larger firm size is perceived as a symbol of stability and long-term resilience, aligning with agency theory, which posits that larger firms are better equipped to manage risks and agency costs.

From a practical standpoint, this study provides important insights for corporate management in formulating relevant disclosure strategies, particularly for environmental reporting. Comprehensive and integrated green accounting disclosures not only demonstrate regulatory compliance but also function as strategic communication tools for investors and stakeholders. Furthermore, the findings highlight the need for management to strengthen environmental disclosure systems so that environmental performance is not merely symbolic, reflected solely through ratings, but is explicitly communicated in the annual reports. Academically, this study underscores the need for a more holistic research framework by incorporating additional variables such as profitability, capital structure, operational efficiency, corporate governance, and external factors, including economic dynamics and government regulations. This is crucial, given that the regression model in this study explains only 12.2% of the variation in firm value, indicating substantial opportunities for further exploration.

The practical implications are directed toward both investors and corporate management. For investors, green accounting can serve as an indicator of a company's long-term sustainability commitment and risk management. For management, the findings suggest that integrating sustainability principles into accounting systems and corporate strategies can enhance market perception and create significant value. From a policy perspective, regulators such as the Financial Services Authority (OJK), Indonesia Stock Exchange, and Ministry of Environment and Forestry should encourage the harmonization and standardization of sustainability reporting, including green accounting and PROPER disclosures. This

would ensure that the environmental information presented by companies is more accountable, relevant, and useful for investor decision-making. Strengthening regulatory frameworks that promote environmental transparency and integrating ESG indicators into corporate annual reporting will further support Indonesia's transition to a sustainable economic development model.

Limitations and Future Research

This study has several limitations that must be acknowledged when interpreting its findings. The primary limitation lies in the relatively low explanatory power of the regression model, as indicated by the Adjusted R^2 value of 12.2%. This suggests that the model constructed in this study explains only a small portion of the variation in firm value, while the majority (87.8%) is influenced by other variables not included in the analysis. Important factors such as profitability, operational efficiency, capital structure, dividend policy, business risk, and corporate governance (Good Corporate Governance) are believed to play a significant role but were not incorporated in this research. Therefore, the findings should be interpreted cautiously and should not serve as the sole basis for strategic decision-making by management or investors.

Furthermore, the scope of this research, which focuses solely on manufacturing companies within the basic material subsector listed on the Indonesia Stock Exchange (IDX), constitutes an important limitation. Focusing on a single industrial subsector restricts the generalizability of the findings, as companies in other sectors may have different operational characteristics, asset intensities, cost structures, and environmental exposures. Hence, future studies should expand the research coverage to include multiple sectors, such as energy, mining, financial services, and technology, to obtain a more comprehensive understanding of the determinants of firm value. Additionally, future research should consider incorporating a broader range of independent variables, such as profitability ratios (ROA, ROE), leverage, market ratios, corporate social responsibility, and macroeconomic variables such as inflation and interest rates. Including more diverse and relevant variables is expected to enhance the predictive power of the model and provide stronger contributions to theoretical development and managerial practice in finance and sustainability.

Acknowledgements

This section acknowledges the various parties who contributed to the completion of this research, both through financial and non-financial support.

References

- Amira, A., & Siswanto, S. (2022). Pengaruh penerapan akuntansi lingkungan terhadap nilai perusahaan consumer non-cyclicals yang terdaftar di Bursa Efek Indonesia. *Jurnal Pajak Dan Keuangan Negara (PKN)*, 4(1S), 200-210.
- Amri, A. (2024). THE EFFECT OF WORKING CAPITAL TURNOVER, COMPANY SIZE, INVENTORY TURNOVER, AND SALES GROWTH ON PROFIT GROWTH (Empirical Study Of Property And Real Estate Sub-Sector Companies Listed On The Indonesia Stock Exchange Period 2018-2021). *Jurnal Relevansi: Ekonomi, Manajemen dan Bisnis*, 8(1), 50-64. doi:<https://doi.org/10.61401/relevansi.v8i1.118>
- Ariestantia, B., Yulistina, Y., & Hasbullah, H. (2023). Pengaruh Profitabilitas, Growth Opportunity, Struktur Modal Terhadap Nilai Perusahaan Pada Perusahaan Publik Di Indonesia (Studi Kasus Sektor Pertambangan Pada Tahun 2018-2021). *Jurnal Relevansi: Ekonomi, Manajemen dan Bisnis*, 7(1), 62-73. doi:<https://doi.org/10.61401/relevansi.v7i1.83>
- Cahyani, B. D., & Imronudin, I. (2025). Pengaruh Profitabilitas, Leverage, dan Size Perusahaan terhadap Return Saham Sektor Consumer Non-Cyclical. *Studi Akuntansi, Keuangan, dan Manajemen*, 4(2), 291-302. doi:<https://doi.org/10.35912/sakman.v4i2.3780>
- Fauziah, E., & Kusuma, I. C. (2025). Pengaruh Penerapan Green Accounting, Kinerja Lingkungan dan Ukuran Perusahaan terhadap Nilai Perusahaan pada Perusahaan Sektor Energi yang Bergerak di Bidang Pertambangan yang Terdaftar di Bursa Efek Indonesia Periode 2019-2023.

- Economic Reviews Journal*, 4(1), 222–234–222–234.
doi:<https://doi.org/10.56709/mrj.v4i1.629>
- Hadjoh, R. A., & Sukartha, I. M. (2013). Pengaruh ukuran perusahaan, kinerja keuangan dan eksposur media pada pengungkapan informasi lingkungan. *E-Jurnal Akuntansi*, 4(1), 1-17.
- Hamidi, H. (2019). Analisis Penerapan Green Accounting Terhadap Kinerja Keuangan Perusahaan. *Equilibiria: Jurnal Fakultas Ekonomi*, 6(2). doi:<https://doi.org/10.33373/jeq.v6i2.2253>
- Ikhsan, A. (2008). Akuntansi lingkungan dan pengungkapannya. *Yogyakarta: Graha Ilmu*.
- Karimullah, S. S. (2024). Implementasi Teknologi Green Economy pada Bisnis Keluarga Modern. *Jurnal Relevansi: Ekonomi, Manajemen dan Bisnis*, 8(2), 101-112.
doi:<https://doi.org/10.61401/relevansi.v8i2.155>
- Kodriyah, K., Mahardini, N. Y., Malik, A., & Wulandari, M. (2025). Kebijakan Deviden dalam Memediasi Faktor yang Mempengaruhi Nilai Perusahaan. *Studi Akuntansi, Keuangan, dan Manajemen*, 4(2), 391-404. doi:<https://doi.org/10.35912/sakman.v4i2.3796>
- Kumala, N., & Priantilianingtiasari, R. (2024). Pagaruh Green Accounting, CSR dan Kinerja Keuangan terhadap Nilai Perusahaan Pertambangan yang Terdaftar di BEI Tahun 2016-2022. *El-Mal: Jurnal Kajian Ekonomi & Bisnis Islam*, 5(2), 776-795.
- Lako, A. (2015). *Green Economy: Menghijaukan Ekonomi, Bisnis, & Akuntansi*. Jakarta: Erlangga.
- Lalo, A., & Hamiddin, M. I. N. (2021). Pengaruh biaya lingkungan dan kinerja lingkungan terhadap profitabilitas pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia. *Kompak: Jurnal Ilmiah Komputerisasi Akuntansi*, 14(1), 196-204.
doi:<https://doi.org/10.51903/kompak.v14i1.229>
- Lestari, A. D., & Khomsiyah, K. (2023). Pengaruh Kinerja Lingkungan, Penerapan Green Accounting, dan Pengungkapan Sustainability Report Terhadap Nilai Perusahaan. *Jurnal Ekonomi Bisnis, Manajemen Dan Akuntansi (JEBMA)*, 3(3), 514-526.
- Mardiatmoko, G. (2020). Pentingnya uji asumsi klasik pada analisis regresi linier berganda (studi kasus penyusunan persamaan allometrik kenari muda [canarium indicum l.]). *BAREKENG: Jurnal Ilmu Matematika Dan Terapan*, 14(3), 333-342.
- Marota, R. (2017). Green concepts and material flow cost accounting application for company sustainability. *Indonesian Journal of Business and Entrepreneurship (IJBE)*, 3(1), 43-43.
doi:<https://doi.org/10.17358/ijbe.3.1.43>
- Martono, & Harjito, D. A. (2005). *Manajemen Keuangan* (Vol. Edisi Pertama). Yogyakarta: Penerbit Ekonisia Fakultas Ekonomi UI.
- Mirnawati, N. W. M., & Dewi, P. E. D. M. (2023). Pengaruh Penerapan Green Accounting, Ukuran Perusahaan, Dan Kepemilikan Saham Terhadap Nilai Perusahaan Pada Perusahaan Sektor Kesehatan Yang Terdaftar Di Bursa Efek Indonesia Periode 2018-2021. *JIMAT (Jurnal Ilmiah Mahasiswa Akuntansi) Undiksha*, 14(04), 1121-1131.
doi:<https://doi.org/10.23887/jimat.v14i04.52949>
- Muqorobin, M. M., & Simamora, A. J. (2025). Effect of Environmental Performance on Firm Value in Indonesian Stock Exchange: Intervening Role of Profitability. *Journal of Trends Economics and Accounting Research*, 5(4), 507-515. doi:<https://doi.org/10.47065/jtear.v5i4.1925>
- Nadila, E., Saputra, J. A. A., & Astuti, S. Y. (2025). Pengaruh Green accounting, CSR, Kinerja Lingkungan dan Ukuran Perusahaan Terhadap Kinerja Keuangan Pada Perusahaan Pertambangan Yang Terdaftar Di BEI Periode 2021-2023. *JAKUMA: Jurnal Akuntansi dan Manajemen Keuangan*, 6(1), 38-57. doi:<https://doi.org/10.31967/jakuma.v6i1.1496>
- Nastiti, E., Damayanti, T. T., & Madina, S. A. (2023). DAMPAK PELANGGARAN ASUMSI KLASIK TERHADAP ESTIMASI MODEL EKONOMETRIKA. *Jurnal Pijar*, 2(01), 150-158.
- Nuraini, I., Muzakir, M., Ponirin, P., & Buntuang, P. C. D. (2025). Pengaruh Green Marketing dan Citra Merek terhadap Pembelian Ulang melalui Kepuasan Konsumen sebagai Variabel Intervening pada Produk Torufarm Palu. *Studi Akuntansi, Keuangan, dan Manajemen*, 4(2), 419-433.
doi:<https://doi.org/10.35912/sakman.v4i2.3969>

- Okta, S. L. J., Suaidah, I., & Antasari, D. W. (2022). Pengaruh pengungkapan akuntansi manajemen lingkungan, biaya lingkungan, dan kinerja lingkungan terhadap nilai perusahaan selama masa pandemi. *JCA (Jurnal Cendekia Akuntansi)*, 3(2), 112-127. doi:<https://doi.org/10.32503/akuntansi.v3i2.3189>
- Oktapriana, C., Bhuana, K. W., & Takrim, M. (2023). Pengungkapan Keberlanjutan Usaha dan Kinerja Tanggung Jawab Sosial: Dampaknya terhadap Nilai Perusahaan. *JURNAL ONLINE INSAN AKUNTAN*, 7(1), 115-129. doi:<https://doi.org/10.51211/joia.v7i1.2242>
- Oktaria, E. T., & Sari, P. N. (2024). Tantangan dan Peluang ESG (Environmental, Social, and Governance) Reporting: Analisis Literatur tentang Peran Akuntansi dalam Pengukuran Kinerja Berkelanjutan Perusahaan. *Jurnal Relevansi: Ekonomi, Manajemen dan Bisnis*, 8(1).
- Parastuti, D. Y. D., Puspita, D. A., & Purnamawati, I. (2025). The Impact of Green Accounting on Firm Value in the Basic Materials Sector. *Jurnal RAK (Riset Akuntansi Keuangan)*, 10(1), 60-74.
- Pratiwi, M. W., & Setyoningsih, S. (2017). *Pengaruh kinerja lingkungan terhadap nilai perusahaan dengan corporate social responsibility disclosure sebagai variabel intervening*. Bakrie University.
- Purbaningsih, R. Y. P. (2024). Pengaruh Green Accounting dan Corporate Social Responsibility (Csr) terhadap Nilai Perusahaan dengan Profitabilitas Sebagai Variabel Moderasi. *Jurnal Akuntansi Dan Keuangan (JAK)*, 29(2), 194-203. doi:<https://doi.org/10.23960/jak.v29i2.3366>
- Rahayu, S., Firmansyah, A., Perwira, H., & Saputro, S. K. A. (2022). Liquidity, leverage, tax avoidance: the moderating role of firm size. *Riset: Jurnal Aplikasi Ekonomi Akuntansi dan Bisnis*, 4(1), 039-052. doi:<https://doi.org/10.37641/riset.v4i1.135>
- Ramadhani, D. L. (2023). Pengaruh Likuiditas, Profitabilitas, Solvabilitas, Ukuran Perusahaan, dan Kualitas Audit Terhadap Opini Audit Going Concern (Studi Empiris pada Perusahaan Sektor Energi yang Terdaftar di Bursa Efek Indonesia Periode 2017–2021). *Jurnal Relevansi: Ekonomi, Manajemen dan Bisnis*, 7(2), 127-140. doi:<https://doi.org/10.61401/relevansi.v7i2.107>
- Riyanto, B. (2001). *Dasar dasar pembelanjaan perusahaan*: BPFE.
- Safitri, N. E. N., & Widiyati, D. (2025). Green accounting, pengungkapan sustainability reporting dan CSR terhadap nilai perusahaan. *Jurnal Riset Pendidikan Ekonomi*, 10(1), 17-27. doi:<https://doi.org/10.21067/jrpe.v10i1.11130>
- Sapulette, S. G., & Limba, F. B. (2021). Pengaruh penerapan green accounting dan kinerja lingkungan terhadap nilai perusahaan manufaktur yang terdaftar di BEI tahun 2018-2020. *Kupna Akuntansi: Kumpulan Artikel Akuntansi*, 2(1), 31-43.
- Sari, K., Akhmadi, A., & Ichwanuddin, W. (2023). Leverage and liquidity to firm value moderated by firm size: a signaling theory approach. *Enrichment: Journal of Management*, 13(3), 2073-2082. doi:<https://doi.org/10.35335/enrichment.v13i3.1579>
- Septiana, A., & Sundari, B. (2024). PENGARUH GREEN ACCOUNTING DAN UKURAN PERUSAHAAN TERHADAP NILAI PERUSAHAAN SUB SEKTOR INDUSTRI DASAR DAN KIMIA YANG TERDAFTAR DI BURSA EFEK INDONESIA. *FINANCIAL: JURNAL AKUNTANSI*, 10(2), 210-220. doi:<https://doi.org/10.37403/financial.v10i2.616>
- Singh, P. J., Sethuraman, K., & Lam, J. Y. (2017). Impact of corporate social responsibility dimensions on firm value: Some evidence from Hong Kong and China. *Sustainability*, 9(9), 1532. doi:<https://doi.org/10.3390/su9091532>
- Spence, M. A. (1973). Job Market Signaling. *quarterly Journal of Economics*, 87, 355-374.
- Tampubolon, M. S. (2022). *Pengaruh Penerapan Green Accounting dan Perputaran Aset terhadap Nilai Perusahaan pada Perusahaan Sektor Manufaktur di Bursa Efek Indonesia Tahun (2018-2020)*. Universitas Medan Area.
- Walhi. (2022). Bertahun-tahun Menjadi Korban Pencemaran Lingkungan, Warga Sukoharjo dan Pekalongan Laporkan PT Rum dan PT Pajitex sebagai Korporasi Pencemar Lingkungan Kepada KLHK, Komnas HAM, dan Komnas Perempuan. Retrieved from <https://www.walhi.or.id/Bertahun-Tahun-Menjadi-Korban-Pencemaran-Lingkungan-Warga->

Sukoharjo-Dan-Pekalongan-Laporkan-Pt-Rum-Dan-Pt-Pajitex-Sebagai-Korporasi-Pencemar-Lingkungan-Kepada-Klhk-Komnas-Ham-Dan-Komnas-Perempuan

- Waruwu, M., Puat, S. N., Utami, P. R., Yanti, E., & Rusydiana, M. (2025). Metode penelitian kuantitatif: Konsep, jenis, tahapan dan kelebihan. *Jurnal Ilmiah Profesi Pendidikan*, 10(1), 917-932. doi:<https://doi.org/10.29303/jipp.v10i1.3057>
- Widiastuti, H., Utami, E. R., & Handoko, R. (2018). Pengaruh ukuran perusahaan, tipe industri, growth, dan media exposure terhadap pengungkapan tanggung jawab sosial perusahaan (studi empiris pada perusahaan yang terdaftar di bursa efek Indonesia tahun 2014-2015). *Riset Akuntansi Dan Keuangan Indonesia*, 3(2), 107-117. doi:<https://doi.org/10.23917/reaksi.v3i2.6745>
- Yuliani, E., & Prijanto, B. (2022). Pengaruh penerapan green accounting terhadap nilai perusahaan dengan profitabilitas sebagai variabel moderating pada perusahaan sub sektor tambang batubara yang terdaftar di Bursa Efek Indonesia periode 2019-2021. *Fair Value: Jurnal Ilmiah Akuntansi Dan Keuangan*, 5(5), 2275-2284.