

The Role Of Green Accounting On Company Value

Ronald N Girsang¹, Tommy Ferdian², Laula Dwi Marthika³, Eryasi Daryati⁴
Accounting Study Program, Faculty of Economics, Muara Bungo University

Email: girsangumb@gmail.com

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ABSTRACT

This study aims to analyze the effect of green accounting on the value of mining sector companies listed on the Indonesia Stock Exchange (IDX) for the 2020–2023 period. The study population includes all mining companies on the IDX, with a sample of 16 companies that have complete annual reports and sustainability reports. A quantitative approach was used with the panel data regression analysis method and the Random Effect Model (REM) model, using EViews 13 software. Green accounting is measured using the PROPER rating, while company value is measured by Price to Book Value (PBV). The results show that green accounting has a positive and significant effect on company value. This finding supports the Signaling, Legitimacy, and Stakeholder theory, which states that good environmental performance is a positive signal for investors and strengthens the company's legitimacy in the eyes of the public.

Keywords: Company Value; Environmental Responsibility; Green Accounting

INTRODUCTION

In the past two decades, attention to environmental issues has increased significantly, driving a transformation in global business practices. Companies are no longer simply required to maximize profits but also to be accountable for the environmental impact of their operations. The concept of green accounting, or environmental accounting, has become crucial in internalizing costs and activities related to environmental preservation into the company's reporting system. As explained by Marota, R. (2024), green accounting is a reporting system that can help management evaluate and plan long-term sustainability policies.

The mining sector in Indonesia is one of the industries most impacted and at the same time, at greatest risk to the environment. Activities such as exploration, excavation, and processing of mining materials have the potential to damage ecosystems if not managed sustainably. In practice, several Indonesian mining companies, such as PT Bukit Asam and PT Aneka Tambang, have reported environmental costs, reclamation costs, and waste management in their sustainability reports. However, standards for implementing green accounting remain inconsistent, and many remain symbolic. The implementation of green accounting in mining companies listed on the Indonesia Stock Exchange is not yet fully optimized and still lacks integration with the company's business strategy (Hasan et al., 2025).

Corporate value is an important measure reflecting an entity's performance, prospects, and market perception. One relevant theory is Signaling Theory, which states that disclosing environmental information can serve as a positive signal to investors. A study by Nuryani (2025) states that transparent disclosure of environmental information



has the potential to increase corporate value by enhancing reputation and investor trust. However, in practice, empirical research results do not always show a consistent relationship, depending on market perception and individual company policies.

The 2020–2023 period is crucial for observing the dynamics of green accounting implementation, given the significant impact of the COVID-19 pandemic, which has forced companies to adapt their sustainability strategies. Despite facing financial pressures, many companies have maintained their social and environmental responsibility programs. For example, data from the Indonesia Stock Exchange shows that mining companies' sustainability reports have been consistently published throughout the pandemic. A study by Aulia et al. (2023) confirms that companies with strong environmental performance are more resilient to market pressures during the pandemic.

However, to date, there has been little research in Indonesia that specifically analyzes the impact of green accounting implementation on company value in the mining sector, covering the period 2020–2023. Therefore, this research is crucial to address this literature gap and provide empirical evidence regarding the contribution of green accounting to increasing company value. The results of this study are expected to enrich academic research and provide practical guidance for mining companies in developing sustainability accounting and reporting policies.

METHODS

This study uses a quantitative approach with an associative approach to analyze the relationship between green accounting implementation and firm value in mining companies in Indonesia during the 2020–2023 period. The quantitative approach was chosen because it allows for objective and systematic measurement of relationships between variables through numerical data processing. According to Sugiyono (2017), a quantitative approach is suitable for testing hypotheses and explaining the influence between variables using specific statistical tools. This study relies on secondary data obtained from annual reports and sustainability reports published by mining companies listed on the Indonesia Stock Exchange (IDX).

In data analysis, this study uses a simple linear regression model with panel data. Panel data was chosen because it can combine the advantages of time series and cross-section data, thereby increasing the number of observational data and the accuracy of model parameter estimation. According to Gujarati & Porter (2009), the use of panel data allows researchers to control inter-individual heterogeneity and obtain more efficient estimates. The model used will test the effect of the independent variable (Green Accounting) on the dependent variable (Firm Value), with indicators such as Price to Book Value or Tobin's Q. Classical assumption tests such as multicollinearity, autocorrelation, heteroscedasticity, and normality tests will be carried out to ensure the validity of the model.

Data processing and analysis were performed using EViews version 13, a software specifically designed for econometric analysis, including panel data regression. Using EViews simplifies modeling, classical assumption testing, and efficiently interprets regression results. This aligns with Ghazali's (2018) opinion, which states that software such as EViews provides comprehensive features for processing regression data, including common effect, fixed effect, and random effect models. The best model was determined using the Chow, Hausman, and Lagrange Multiplier tests, as suggested by Baltagi (2008). Once an appropriate model was obtained, coefficient and significance analysis were interpreted to draw conclusions regarding the relationship between green accounting and firm value.

RESULTS AND DISCUSSION

Table 1. Chow Test Results

Redundant Fixed Effects Tests
Equation: Untitled
Cross-section fixed effects test

Effects Test	Statistics	df	Prob.
Cross-section F	56.968526	(15.62)	0.0000
Cross-section Chi-square	215.476649	15	0.0000

Source: Processed 2025

Table 2. Hausman Test Results

Correlated Random Effects - Hausman Test
Equation: Untitled
Cross-section random effects test

Test Summary	Chi-Sq. Statistic	Chi-Sq. df	Prob.
Random cross-section	0.253524	2	0.8809

Source: Processed Data 2025

Table 3. Lagrange Multiplier Test Results

Lagrange Multiplier Tests for Random Effects
Null hypothesis: No effects
Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Hypothesis Test Cross-section	Time	Both
Breusch-Pagan	132.4539 (0.0000)	2.202795 (0.1378)	134.6567 (0.0000)
Honda	11.50886 (0.0000)	-1.484182 (0.9311)	7.088520 (0.0000)
King Wu	11.50886 (0.0000)	-1.484182 (0.9311)	3.961898 (0.0000)
Standardized Honda	12.32602 (0.0000)	-1.304809 (0.9040)	4.677581 (0.0000)
Standardized King Wu	12.32602 (0.0000)	-1.304809 (0.9040)	1.672214 (0.0472)
Gourieroux, et al.	--	--	132.4539 (0.0000)

Source: Processed Data 2025

Based on Table 1, the results of the Chow test are below 0.000, so the appropriate model selection in this study is the Fixed Effects Model. Meanwhile, in Table 2, the Hausman test, with results above 0.05, the appropriate model is the Random Effects Model. Meanwhile, in Table 3, the Lagrange Multiplier Test with results of 0.000 below

0.05, the appropriate model is the Random Effects Model. Of these three tests, the researcher used the Random Effects Model.

In this study, classical assumption tests such as normality tests, heteroscedasticity tests, autocorrelation tests, and multicollinearity tests were not performed. This is because this study uses a panel data regression method with the Random Effect Model (REM) approach as the main estimation technique. Classical assumption tests were not performed in this study because the Random Effect model used has met the Best Linear Unbiased Estimator (BLUE) assumptions through the Swamy-Arora EGLS Panel estimation approach. Thus, classical assumption testing is not required explicitly in the context of panel data regression. (Basuki, 2021., Widarjono, 2018., Ghazali, 2018.

The following are the results of processing research data using e-views 12

Table 4. Panel Data Regression with Random Effect Model

Dependent Variable: HS

Method: Panel EGLS (Cross-section random effects)

Date: 05/23/25 Time: 20:57

Sample: 2020 2023

Periods included: 4

Cross-sections included: 16

Total panel (balanced) observations: 64

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1,394	580.5903	2.305229	0.0238
GACC	1,284	1836.216	2.796902	0.0180
Effects Specification				
			Elementary School	Rho
Random cross-section			2284,866	0.9277
Idiosyncratic random			637.7069	0.0723
Weighted Statistics				
Root MSE	618.4998	R-squared		0.713938
Mean dependent var	173.9615	Adjusted R-squared		0.711674
SD dependent var	626.7856	SE of regression		63.40334
Sum squared residual	30603332	F-statistic		2.796902
Durbin-Watson stat	0.600092	Prob(F-statistic)		0.018678
Unweighted Statistics				
R-squared	0.011549	Mean dependent var	1404,542	
Sum squared residual	3.76E+08	Durbin-Watson stat	0.048788	

Based on the data above, the significant value of the Green Accounting variable on Company Value is 0.0180 or less than 0.05, which means that Green Accounting on Company Value

This study aims to analyze the effect of green accounting, as measured by the PROPER rating, on firm value, as measured by Price to Book Value (PBV), in mining companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2023 period.

Based on the results of panel data regression tests using EViews software, the green accounting variable (PROPER) has a positive and significant effect on firm value.

A high PROPER rating, such as green or gold, indicates that a company has exceeded minimum compliance with environmental regulations and even innovated in environmental impact management. PROPER is used as a proxy for green accounting. The results of this study indicate that companies with higher PROPER ratings tend to have better PBV values. This means that good environmental management impacts market perception of the company's economic value. This finding aligns with research by Asyari & Hernawati (2023), which concluded that environmental information published through the PROPER mechanism can enhance a company's reputation, thereby influencing investor interest and increasing the company's value in the capital market.

This explanation also reinforces the relevance of legitimacy and stakeholder theory. According to legitimacy theory, companies must operate in accordance with prevailing societal norms to maintain support for their business sustainability (Suchman, 1995). Meanwhile, stakeholder theory, as explained by Freeman (2010), emphasizes that a company's success is determined not only by its capital owners but also by its response to the expectations of society and other stakeholders. Therefore, the PROPER rating serves not only as a benchmark for environmental compliance but also as a means for companies to gain social legitimacy and investor trust.

CONCLUSION

Based on the results of a panel data regression analysis of mining companies listed on the Indonesia Stock Exchange during the 2020–2023 period, it can be concluded that green accounting, as measured by the PROPER rating, has a positive and significant effect on company value, as measured by Price to Book Value (PBV). The higher the PROPER rating a company obtains, the higher its value in the eyes of investors. These findings demonstrate that proper implementation of environmental responsibility not only contributes to environmental sustainability but also has positive economic impacts. Green accounting has proven to be an effective long-term strategy for increasing investor confidence, improving corporate image, and creating added value in the capital markets.

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