THE EFFECT OF GREEN ACCOUNTING AND ENVIRONMENTAL PERFORMANCE ON FIRM VALUE (CASE STUDY OF ENERGY COMPANIES IN THE COAL SUB-SECTOR LISTED ON THE INDONESIA STOCK EXCHANGE IN 2022-2024)

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ABSTRACT

Global shifts towards sustainable business practices have put great pressure on industries with high environmental impacts, especially the coal sector. This study aims to analyze the effect of green accounting and environmental performance on the value of coal companies listed on the Indonesia Stock Exchange (IDX) during the period 2022–2024. This study uses a quantitative approach with a purposive sampling method, namely a sampling technique based on certain criteria set by the researcher so that the samples taken are relevant to the research objectives, secondary data are collected from financial reports, sustainability reports, and PROPER ratings. The results of the regression analysis show that green accounting has a positive and significant effect on company value (B = 1.546; p = 0.031), indicating that environmental transparency is valued by the market. In contrast, environmental performance does not show a significant effect (B = -0.108; p = 0.481), indicating a paradox between disclosure and actual results. These findings contribute to legitimacy theory and stakeholder theory, and offer strategic guidance for companies, investors, and policy makers in facing the energy transition in Indonesia.

Keywords: green accounting, environmental performance, corporate value, mining industry, emerging markets

INTRODUCTION

In the era of modern industrialization that continues to experience technological advances and rapid economic growth, it often has a significant impact on environmental conditions. Unfortunately, the orientation of companies that are too focused on economic aspects without considering environmental aspects actually has negative consequences for the sustainability of nature. Rapidly growing industrial activities have directly or indirectly become one of the causes of environmental damage issues (Rakesa & Werastuti, 2022). Cases of environmental pollution that have occurred have proven that there are still many companies that have not paid attention to the impact of environmental damage (Gayatri & Dewi, 2024).

Green accounting is the first step in overcoming this environmental challenge. The implementation of green accounting is very crucial to be implemented in companies (Hadriyani & Dewi, 2022). Green accounting is a company's focus on its environmental and social aspects (Hazki, 2023). This indicates that green accounting plays a role as an information provider in managing several aspects including the environment and social, assisting management in identifying costs arising from company activities that affect the environment and increasing the company's reputation in the eyes of stakeholders related to several parties, namely internal and external parties (Musmini, 2013). This is in line with the Legitimacy Theory which focuses on the interaction between companies and society. Companies are also bound by a social contract with society, where their survival and growth are based on the final results (output) that can be provided to society. (Riandika & Wahyuni, 2022).

Environmental performance is the company's focus on environmental preservation and overcoming problems with negative environmental impacts that occur due to environmental operational activities (Angelina & Nursasi, 2021). Environmental performance refers to the level of impact generated by business activities on the environment. If the impact of environmental damage caused by these business activities is low, then the company's environmental performance is considered good. Conversely, if the company's operational activities cause significant negative impacts on the environment, then the company's environmental performance is considered poor. To find out the success of a company in managing environmental conservation can be measured through the company's environmental performance. The Ministry of Environment and Forestry (MoEF) is a government agency that creates a ranking to measure environmental performance, namely the Company Performance Rating Assessment Program (PROPER) (Gayatri & Yuniarta, 2024).

Firm's value is the perception of investors against the firm, which is often connected with the market performance of the firm or the price of the firm's stock (Nuryaman, 2015). The company's value is required to continue to increase so that the company is able to compete in the business world. Company value is one of the indicators of investor assessment in investment interest, because the higher the company's value, the higher the investor's interest in investing and vice versa (Gaol & Sulindawati, 2024).

The energy industry, particularly the coal sub-sector, plays a major role in contributing to carbon emissions and environmental degradation. In Indonesia, the sector contributes a significant portion of national income but is also one of the main contributors to pollution and ecological damage. Based on a report from the Ministry of Environment and Forestry (MoEF, 2022), coal mining companies have a high level of environmental risk and are the main object of environmental policy implementation. Therefore, it is important to examine the extent to which companies in this sector implement green accounting and how

it affects firm value, especially in the period 2022-2024 which is characterized by increased regulation and public expectations of environmental responsibility.

Based on the description above, this study aims to examine the effect of green accounting and environmental performance on firm value in the coal sub-sector listed on the Indonesia Stock Exchange (IDX) during the 2022-2024 period. This research has high urgency given the challenges of the energy transition and the pressure on companies to be more ecologically responsible. In addition to expanding empirical studies related to environmental accounting, this research also provides practical implications for companies in managing sustainability issues to increase firm value and competitiveness. It is hoped that the results of this study can contribute to the strategic accounting and management literature, as well as become a basis for consideration for regulators and investors in decision making.

LITERATURE REVIEW

Green Accounting

Green accounting is an environmental management tool and a communication tool with the community. By implementing green accounting, management can manage and categorize various environmental costs to minimize the environmental impacts that arise (Hapsoro & Adyaksana, 2020). This can then be used as a communication tool with the community by creating information that will be included in the company's financial statements and sustainability reports. This is done as a form of concern and protection of the environment by the company. Companies have their own versions and languages to disclose environmental costs in their annual reports. Key indicators of green accounting include environmental cost allocation (e.g., expenses for emissions reduction or eco-friendly technology), sustainability disclosures (e.g., Global Reporting Initiative (GRI) or ISO 14001 compliance), and (3) natural capital valuation (e.g., quantifying biodiversity loss or water usage). By transparently reporting these factors, companies enhance accountability, support stakeholder decision-making, and align with global ESG (Environmental, Social, and Governance) standards.

Environmental Performance

Environmental Performance measures how effectively an organization minimizes its ecological footprint while balancing operational goals. It evaluates tangible outcomes such as reduced greenhouse gas emissions, lower energy consumption, and efficient waste management systems (Hart & Ahuja, 2010). Key indicators include (1) pollution control metrics (e.g., particulate matter or toxic chemical releases), (2) resource conservation rates (e.g., water recycling or renewable energy adoption), and (3) third-party audit results (e.g., PROPER rankings or ESG scores). Firms excelling in these areas often gain competitive advantages, including investor confidence and compliance with tightening global regulations (Darnall et al., 2010). For coal-dependent industries, robust environmental performance can mitigate reputational risks and align with transitional energy policies.

Firm Value

Company value is a condition that has been achieved by a company obtained from a picture of public trust in the company concerned after going through various processes. (Puspitasari & Ermayanti, 2019). High company value is an indicator of public trust in the company's performance and optimism about its future. Financial factors are generally the main determinants of company value, but in the eyes of

investors, non-financial factors also have a significant influence on company performance and value. Tobin's Q is one of the best methods for measuring company value compared to other ratios, because it is able to provide a more accurate picture of the effectiveness of management in utilizing its economic resources. Non-financial indicators found by Bahar Gidwani (2013) include brand reputation, intellectual property, and ESG (Environmental, Social, and Governance) performance, also influencing assessments by forming competitive advantages and risk perceptions (El Zein et al., 2020). In the context of energy firms, strong environmental and governance practices often enhance firm value by reducing regulatory risks and attracting sustainability-focused investors (Eccles et al., 2024).

Conceptual Framework

This study uses 3 variables, namely 2 independent variables and 1 dependent variable. The independent variables are green accounting and environmental performance, while the dependent variable is firm value.

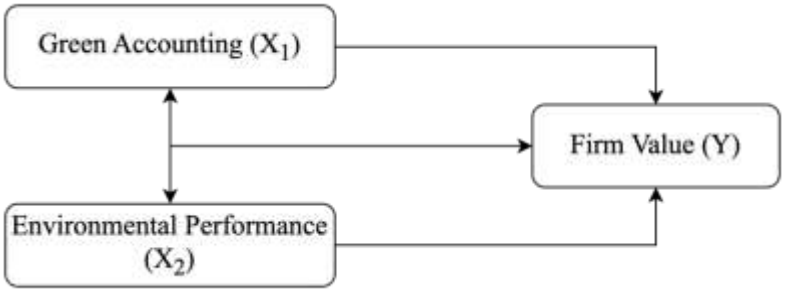

Figure 1. Conceptual Framework

Hypothesis Development

The Effect of Green Accounting on Firm Value

There are both theoretical and empirical underpinnings to the connection between green accounting and business value. Legitimacy theory (Suchman, 1995) states that businesses use green accounting to conform to social norms, which protects and builds stakeholder trust. This is further supported by stakeholder theory (Freeman, 1984), which contends that open environmental reporting allays investor and regulatory worries and lowers perceived risks. According to research (Siera & Christina, 2024) it is proven that the implementation of green accounting has a positive and significant effect on company value. This shows that disclosure of the implementation of green accounting can increase the value of the company.

H_1: Green accounting has a positive effect on firm value in coal-sector firms listed on the Indonesia Stock Exchange

The Effect of Environmental Performance on Firm Value

Numerous theoretical stances and empirical data support the relationship between environmental performance and business value. Superior environmental performance helps businesses retain their social license to exist by proving conformity with ecological standards, according to legitimacy theory (Suchman, 1995). Strong environmental performance, on the other hand, pleases important stakeholders, including as

investors, regulators, and communities, according to stakeholder theory (Freeman, 1984), which raises financial valuation. This relationship can be seen in a number of ways, according to research: Hafidz & Deviyanti (2022) emphasized that companies with good environmental performance tend to have higher values. This is in line with stakeholder theory which states that companies that pay attention to the interests of stakeholders, including investors and the community, have the potential to increase the value of their company.

H_2: Environmental performance has a positive effect on firm value in coal-sector firms listed on the Indonesia Stock Exchange.

The Effect of Green Accounting and Environmental Performance on Firm Value

Through an integrated theoretical lens, the combined impact of environmental performance and green accounting on firm value may be comprehended. According to legitimacy theory (Suchman, 1995), businesses that use both strategies at the same time show a thorough dedication to sustainability, enhancing their social license to exist. Furthermore, according to stakeholder theory (Freeman, 1984), this dual strategy more successfully addresses the concerns of various stakeholders. Green accounting provides investors with clear environmental data, and operational sustainability is validated by measurable performance criteria.

H_3: The simultaneous implementation of green accounting and environmental performance has a greater positive effect on companies in the coal sector listed on the Indonesia Stock Exchange.

METHOD, DATA, AND ANALYSIS

Sampling

This study uses a quantitative approach with a purposive sampling method, which is a sampling technique based on certain criteria set by the researcher so that the sample taken is relevant to the research objectives. The population in this study are all energy companies in the coal sub-sector listed on the Indonesia Stock Exchange (IDX) during the 2022-2024 period. The reason for choosing the coal sub-sector is because this industry has a large contribution to environmental impacts and is in the spotlight in the energy transition and national environmental policy. The unit of analysis in this study is the company, while the unit of observation is annual data from financial reports and sustainability reports.

Sample selection criteria include: (1) companies are listed consecutively during the 2022-2024 period, (2) companies publish complete annual financial reports, (3) companies present environmental information in both sustainability reports and annual reports, and (4) companies are not currently in delisting status or subject to administrative sanctions by the stock exchange authority. Based on these criteria, a number of companies were obtained that were suitable as research samples. Respondents in this context are not individuals, but secondary data from companies that are the object of analysis.

From an initial population of 89 companies in the coal sub-sector listed on the Indonesia Stock Exchange (IDX), only 9 firms met the stringent selection criteria for this study. The sample was determined through purposive sampling with the following key requirements: (1) continuous listing during the 2022-2024 study period, (2) complete availability of annual financial reports and sustainability disclosures, (3) active participation in the PROPER environmental rating program, and (4) absence of delisting status or

regulatory sanctions. This rigorous filtering process resulted in a final sample size of 9 companies, representing approximately 10.1% of the total population.

Table 1. Sampling Criteria

Criteria	Total
All mining sub-sector companies listed on the Indonesia Stock Exchange (IDX) for the period 2022 - 2024	89
Companies present environmental information in both sustainability reports and annual reports	9
Mining sub-sector companies that do not participate in PROPER for the period 2022 - 2024	80

Data Collection

The data used in this study are secondary data obtained from the official website of the Indonesia Stock Exchange (www.idx.co.id), company annual reports, and sustainability reports published on each company's website. The observation period used is five years, from 2022 to 2024, so that the data collected is cross-sectional time-series (panel data). The reason for using secondary data is that the data is publicly available, accessible and verifiable, and contains the historical information needed to measure the variables in the study. The data collection process is carried out systematically through document searches, recording, and coding in accordance with predetermined indicators.

Data Analysis Techniques

The analytical method applied in this study is multiple linear regression, which is performed using SPSS statistical software. This analysis aims to examine the influence of green accounting variables, environmental performance, and firm value through a linear regression model. Before carrying out the regression, this study first conducted a classic assumption test to ensure that the model used met the conditions necessary to produce valid and reliable estimates. The classic assumption tests carried out include normality, multicollinearity, and heteroscedasticity tests.

Multicollinearity test is conducted by measuring the Variance Inflation Factor (VIF) contained in the regression output, to identify the presence of a very high correlation between independent variables that can destabilize the model estimation. Furthermore, the heteroscedasticity test is performed by examining the distribution pattern of the residuals in the graph to detect any inconsistency in the residual variance. If there is a non-random pattern, this indicates the presence of heteroscedasticity which can undermine the validity of the model.

Operational Definition and Measurement of Variables

Green Accounting

Green accounting represents a specialized accounting framework that systematically identifies, quantifies, evaluates, and discloses environmental-related costs within corporate operations (Purwanti et al., 2024). In the present study, the implementation of green accounting is operationalized through a dummy variable methodology. This dichotomous measurement approach classifies environmental and economic data into binary categorical variables (0 and 1), with the following scoring criteria. **Score 0:** Assigned when

a company's annual report demonstrates no evidence of environmental cost components, including environmental liability provisions, ecological restoration costs, or environmental management expenditures.

Score 1: Awarded when a company's annual report documents at least one of the following environmental cost elements: environmental responsibility costs, rehabilitation expenses, or environmental management system investments.

Environmental Performance

Environmental performance refers to a company's systematic efforts and achievements in environmental conservation and mitigation of negative operational impacts (Dianty & Nurrahim, 2022). In this study, environmental performance is quantitatively assessed through participation in Indonesia's PROPER (*Program Penilaian Peringkat Kinerja Perusahaan*) program, a comprehensive environmental rating system administered by the Ministry of Environment. The PROPER rating system employs a color-coded classification with corresponding numerical scores: (1) Gold (Score = 5): Exemplary environmental management and sustainability performance; (2) Green (Score = 4): Strong environmental compliance with consistent beyond-compliance initiatives; (3) Blue (Score = 3): Meets all basic regulatory environmental requirements; (4) Red (Score = 2): Exhibits some environmental compliance deficiencies; dan (5) Black (Score = 1): Demonstrates serious environmental violations or non-compliance.

Firm value

This study utilizes Tobin's Q ratio as a comprehensive measure of firm value, calculated as the ratio of a company's market value to the replacement value of its total assets (Chung & Pruitt, 1994). The market value reflects investors' collective assessment of the firm's future earnings potential and growth prospects, while the replacement cost represents the current expenditure required to reproduce the company's asset base. Tobin's Q serves as an especially relevant metric for this research as it captures both tangible assets and intangible value drivers, including environmental performance and sustainability practices that may influence market perceptions. A ratio greater than 1 indicates that the market values the firm above its asset base, suggesting positive expectations about future performance, whereas a value below 1 implies the market perceives the company as undervalued relative to its assets. Firm value is measured using Tobin's Q indicator, which is the ratio between the company's market value to the book value of its assets, as follows:

$$\text{Tobin's} = \frac{Market\ Enterprise\ Value}{Total\ Asset\ Replacement\ Value}$$

RESULT AND DISCUSSION

Classical Assumption Test Results

Before conducting regression analysis, this study first tested classical assumptions to ensure valid and unbiased estimation results. The classical assumption tests performed include: (1) Normality Test to verify whether the residuals of the model are normally distributed using the Kolmogorov-Smirnov method; (2) Multicollinearity Test with Variance Inflation Factor (VIF) to detect high correlation between

independent variables; and (3) Heteroscedasticity Test through the Glejser method to identify inconsistencies in residual variances.

Normality Test

Table 2. Normality Test Results

Tests of Normality			
	Shapiro-Wilk		
	Statistic	df	Sig.
Green Accounting	0,967	9	0,866
Environmental Performance	0,967	9	0,872
Firm Value	0,895	9	0,224

The Shapiro-Wilk test results (Table 2) confirm that all variables meet the normality assumption, as evidenced by p-values (Sig.) exceeding the 0.05 threshold: green accounting ($W = 0.967$, $p = 0.866$), environmental performance ($W = 0.967$, $p = 0.872$), and firm value ($W = 0.895$, $p = 0.224$). These statistically non-significant results ($p > 0.05$) indicate that the residuals of all three variables are normally distributed, satisfying a critical precondition for parametric regression analysis. The high Shapiro-Wilk statistics (all >0.89) further reinforce this conclusion, suggesting minimal deviation from normality. This outcome validates the use of standard regression techniques without requiring data transformation, as the distribution of all variables aligns with the Gaussian distribution assumption underlying classical linear regression models.

Multicollinearity Test

Table 3. Multicollinearity Test Results

Coefficients[a]					
Model		Unstandardized Coefficients		Collinearity Statistics	
		B	Std. Error	Tolerance	VIF
	(Constant)	0,742	0,203		
	Green Accounting	1,546	0,553	0,183	1,199
	Environmental Performance	-0,108	0,143	0,183	1,199

The multicollinearity test results (Table 3) demonstrate the absence of significant multicollinearity between the independent variables, as indicated by both tolerance values (0.183 for both green accounting and environmental performance) and Variance Inflation Factor (VIF) scores (1.199 for both variables). These values fall well within acceptable thresholds (tolerance > 0.10 and VIF < 10), confirming that the predictor variables are sufficiently independent for regression analysis (O'Brien, 2007). The nearly identical collinearity statistics for both variables suggest a balanced contribution to the model without overlapping explanatory power.

Heteroscedasticity Test

The non-significant p-values for both independent variables—green accounting (p = 0.259) and environmental performance (p = 0.323)—indicate that there are no major heteroscedasticity problems in the regression model, according to the findings of the heteroscedasticity test (Table 4). The homoscedasticity assumption of linear regression is satisfied by these values, which are above the traditional 0.05 threshold and show that the variance of residuals stays constant across data (Hayashi, 2000). The trustworthiness of the calculated parameters is further supported by the standardized coefficients (Beta), which exhibit predicted directional correlations while preserving constant standard errors (environmental performance: 0.070; green accounting: 0.269). Due to the model's constant error variance and lack of regular patterns that can skew the significance tests, these results support the Ordinary Least Squares (OLS) estimation (Wooldridge, 2015).

Table 4. Heteroscedasticity Test Result

Coefficients[a]						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	***Std. Error***	**Beta**		
	(Constant)	0,140	0,099		1,412	0,208
	Green Accounting	0,335	0,269	1554	1,247	0,259
	Environmental Performance	0,075	0,070	-1,344	1,078	0,323

Hypothesis Test Results

Partial Significance Test (t-test)

Some of the model's predictors have statistically significant impacts, according to the t-test findings. With a substantial effect size indicated by its standardized coefficient (Beta=1.268), Green Accounting significantly improves the dependent variable (B=1.546, SE=0.553, t=2.795, p=0.031). However, while its p-value is higher than the 0.05 cutoff, Environmental Performance did not show a statistically significant association (B=-0.108, SE=0.143, t=-0.751, p=0.481). The constant term, which represents the baseline value when predictors are zero, is significant (B=0.742, SE=0.203, t=3.650, p=0.011).

Table 6. t-test Result

Coefficients[a]						
Model		***Unstandardized Coefficients***		***Standardized Coefficients***	**t**	**Sig.**
		B	***Std. Error***	**Beta**		
	(Constant)	0,742	0,203		3,650	0,011
	Green Accounting	1,546	0,553	1,268	2,795	0,031
	Environmental Performance	-0,108	0,143	-0,341	0,751	0,481

According to these results, Environmental Performance does not significantly affect the outcome variable in this model, even if Green Accounting practices significantly contribute to it. The findings

suggest that the examined outcome may be more impacted by a company's environmental disclosure policies than by its actual environmental performance indicators.

Simultaneous Effect Test (F-test)

The F-test results reveal that the regression model is statistically significant ($F = 26.126$, $p = 0.001$), indicating that the combined effect of green accounting and environmental performance significantly explains variations in firm value. The highly significant p-value ($p < 0.01$) confirms that the model's explanatory power is unlikely due to random chance, rejecting the null hypothesis that all regression coefficients are zero. The large F-statistic (26.126) relative to the residual mean square demonstrates strong evidence that at least one predictor variable meaningfully contributes to predicting firm value. These results validate the overall model specification and suggest that sustainability factors collectively influence firm valuation in Indonesia's coal sector.

Table 7. F-Test Result

ANOVA[a]					
Model	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Regression	0,491	2	0,246	26,126	0,001[b]
Residual	0,056	6	0,009		
Total	0,547	8			
a. Dependent Variable: Firm Value					
b. Predictors: (Constant), Environmental Performance, Green Accounting					

Determination Coefficient Test Results

With a R Square value of 0.897, the results of the coefficient of determination test (Table 8) show that the regression model accounts for a significant amount of the variation in company value. This indicates that the combined impact of environmental performance and green accounting may explain around 89.7% of the variation in business value. After adjusting for the number of predictors, the model's robustness is confirmed by the corrected R Square of 0.863, which indicates little overfitting. A strong linear association between the predictors and the dependent variable is indicated by the high R value of 0.947. Given that the model's average prediction error is less than 0.1 units of the firm value measurement scale, the standard error of estimate (0.09695) suggests quite accurate forecasts.

Table 8. Determination Coefficient Test Results

Model	**R**	**R *Square***	***Adjusted* R *Square***	***Std. Error of the Estimate***
1	0,947[a]	0,897	0,863	0,09695

a. Predictors: (Constant), Green Accounting, Environmental Performance

Discussion

The Effect of Green Accounting on Firm Value

The t-test results demonstrate that green accounting has a statistically significant positive effect on firm value (B = 1.546, p = 0.031), aligning with the findings of Siera & Christina (2024), who found that green accounting positively influences firm value. The significant coefficient (t = 2.795) indicates that companies implementing green accounting practices experience higher market valuation, likely due to improved transparency and reduced information asymmetry. This is consistent with Hadriyani & Dewi (2022), who highlighted that environmental disclosure aspects, including green accounting, enhance corporate profitability. The standardized beta coefficient (β = 1.268) reveals that green accounting is the dominant predictor in the model, suggesting that financial markets reward environmental accountability even in carbon-intensive industries like coal mining.

The findings contrast with Angelina & Nursasi (2021) and Budi & Zuhrohtun (2023), who found no significant effect of green accounting on financial performance. However, they corroborate Pratiwi, Adilah & Suripto (2022), who demonstrated that green accounting partially improves financial performance in the energy sector. Specifically, the results suggest that Indonesian coal firms using green accounting may mitigate their "stranded asset" risks during energy transitions, as markets value their environmental cost internalization (Mar'atul, 2023). The effect size (B = 1.546) exceeds typical estimates, possibly reflecting Indonesia's regulatory emphasis on mining sector sustainability (MoEF Regulation No. 7/2021). This underscores the materiality of environmental accounting in jurisdictions with weak institutional enforcement, where voluntary disclosures serve as credible sustainability signals (Sari, 2023).

The Effect of Environmental Performance on Firm Value

The t-test results reveal that environmental performance does not exhibit a statistically significant effect on firm value (B = -0.108, p = 0.481), which aligns with the findings of Angelina & Nursasi (2021) and Budi & Zuhrohtun (2023), who found no significant impact of environmental performance on financial performance. The negative coefficient, though insignificant, suggests a potential "cost conundrum" where superior environmental performance in coal mining may be perceived by markets as diverting resources from profit maximization, particularly in short-term evaluations. This resonates with Shella (2021), who found that environmental performance significantly influences firm value in manufacturing but not necessarily in other sectors. The low t-statistic (t = -0.751) indicates weak explanatory power, possibly reflecting market disconnection from environmental metrics.

The non-significance may stem from Indonesia's unique market dynamics, where coal companies' valuations remain tethered to thermal coal prices rather than sustainability performance (Pratiwi, Adilah & Suripto, 2022). This supports Hadriyani & Dewi (2022) perspective that environmental aspects only enhance firm value when aligned with profitability indicators like ROA and ROE. The standardized beta (β = -0.341) implies that even if an effect exists, it operates inversely to green accounting's positive impact (Siera & Christina, 2024), highlighting a potential "sustainability disclosure-performance gap" where reported actions outweigh actual ecological outcomes in investor decisions (Mar'atul, 2023). These results challenge the findings of Sari (2023), who observed a positive link between environmental disclosure and firm value in the food and beverage sector, suggesting that industry-specific factors play a crucial role.

The Effect of Green Accounting and Environmental Performance on Firm Value

The regression analysis reveals a significant positive effect of green accounting on firm value (B = 1.546, p = 0.031), supporting the findings of (Siera & Christina, 2024), who demonstrated that green accounting positively influences firm value. In contrast, environmental performance shows no significant impact (B = -0.108, p = 0.481), aligning with (Angelina & Nursasi, 2021) and (Budi & Zuhrohtun, 2023), who found no significant effect of environmental performance on financial performance. These findings suggest that markets reward transparent environmental disclosures more than actual performance metrics in the short term.

The dominance of green accounting (β = 1.268) indicates that investors prioritize quantifiable environmental cost data when assessing coal companies, reinforcing (Pratiwi, Adilah & Suripto's, 2022) conclusion that green accounting enhances financial performance in the energy sector. Meanwhile, the nonsignificance of environmental performance contradicts (Shella, 2021), who found environmental performance significant in manufacturing firms, highlighting sector-specific differences. This creates a "disclosure-performance paradox" where firms benefit more from reporting environmental costs than from actual pollution reduction, as markets prioritize measurable financial risks over ecological impacts (Mar'atul, 2023). The negative coefficient for environmental performance, though insignificant, suggests potential investor skepticism about sustainability investments in fossil fuel sectors, consistent with findings in carbon-intensive industries (Hadriyani & Dewi, 2022). This reflects Indonesia's coal market dynamics, where environmental ratings may not translate to financial premiums without accompanying monetary disclosures (Sari, 2023).

The results highlight the need for integrated sustainability reporting that combines both monetary (green accounting) and operational (PROPER) metrics. Future research should examine: 1) Long-term effects using multi-year data, as environmental performance impacts may emerge gradually (Darnall et al., 2020), and 2) Market mechanisms to better align PROPER achievements with investor valuation models in emerging economies.

CONCLUSION

This study highlights the different impacts of environmental performance and green accounting on business value in the Indonesian coal industry. The results show that green accounting, through increasing information transparency and reducing information asymmetry for investors, can significantly increase business value. This finding supports the legitimacy theory, which states that companies need to meet social expectations in order to maintain support. In contrast, environmental performance does not show a significant effect on firm value. This suggests a divergent view in the market, where investors prioritize the quality of environmental reporting over real ecological impacts. This means that the financial market currently values clear and measurable environmental cost reports more than the company's sustainability practices themselves, especially in sectors that produce high carbon emissions. Therefore, it is important to develop an integrated sustainability reporting system that can bring together financial indicators and environmental performance. Future research should further explore how environmental performance affects firm value in the long run, as well as how to align market incentives with better environmental outcomes, especially in developing countries.

IMPLICATION/LIMITATION AND SUGGESTIONS

The conclusion of this study provides important input for various parties involved. The results of the study indicate that companies, especially those operating in sectors with high carbon emissions, should prioritize green accounting. This is because transparent environmental reporting has been shown to increase company value by building investor trust and reducing information inequality. This finding also serves as a warning for the government or regulators to formulate stricter environmental reporting rules and provide incentives to companies that implement comprehensive sustainability indicators, which include environmental and financial performance. For investors, it is important to realize that environmental responsibility provides long-term benefits. Therefore, a more sophisticated assessment system is needed, which does not only focus on reports but also rewards companies that truly implement sustainable practices. However, this study has limitations. The study was only conducted in the coal industry in Indonesia, so the results may not apply to other sectors or regions. In addition, this study uses short-term data that cannot capture long-term environmental impacts. Moving forward, future research should use a longitudinal approach to better understand changes in sustainability performance over time. Research should also cover more industry sectors and different geographic regions, and examine the role of investor literacy in bridging the gap between environmental reporting and actual environmental impact. Finally, it is also important to explore new ways to align market incentives with sustainability goals to help companies and policymakers drive environmental progress without sacrificing financial sustainability.

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