



The Influence of Green Accounting Implementation and Environmental Performance on Firm Value

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ABSTRACT

This research aims to test, analyze and empirically prove the influence of green accounting and environmental performance on company value in basic materials sector companies listed on the Indonesia Stock Exchange in 2021-2023 with a population of 107 companies. The research sample was selected using a purposive sampling technique according to the criteria so that a sample of 20 companies was obtained. This research uses the SPSS version 29 application to test sample data for each variable. This research is causality research with a quantitative approach that uses secondary data collected from annual financial reports and company continuity reports obtained from the official website of the Indonesia Stock Exchange www.idx.co.id and which can be obtained from the respective company websites. The results of the green accounting study measured by the environmental cost ratio have a significant effect on company value. While the environmental performance variable measured by the PROPER rating does not have a significant effect on company value. The novelty in this study is that the green accounting variable is seen from the environmental costs measured using the formula $\text{environmental costs} / \text{net profit after tax}$. While previous studies, environmental costs were measured using dummy variables. Then the company value variable was measured using Tobin's Q. However, in this study the company value variable was measured using Price to Book Value (PBV).

Keywords: green accounting, environmental performance, company value, price to book

INTRODUCTION

Currently, the topic of global warming is still being discussed. The consequences arising from this phenomenon have impact on a major the survival of humans and other living things. The that impacts arise in general are air pollution, water pollution and soil pollution caused by company waste and the need to improve and maintain sustainability in the future (Abubakar et al., 2022). of Cases environmental pollution committed by companies prove that there are still many companies that do not have awareness of the importance of protecting the environment. One of the company sectors that needs attention is basic material companies consisting of companies with business processes related to business in converting metal goods into finished or semi-finished goods and will be still processed in further economic activities (Achaw & Danso-Boateng, 2021). With the increasing environmental problems in the form of environmental pollution and the reduction of natural resources, an understanding of environmental conservation efforts is needed prevent The , namely Indonesian government has made laws related to environmental pollution Law of the Republic of Indonesia No. 32 of 2009 explaining systematic and integrated efforts to preserve the environment and environmental

pollution which includes planning, utilization, , controlmaintenance, supervision, and law enforcement (Oktavianon et al., 2024).

The purpose of implementing environmental accounting is to improve the efficiency of environmental management by conducting activities from the point of view of costs and benefits or effects (Stasiskiene, 2022). Managing costs for the benefit of the environment today will help reduce costs that may be greater in the future (Shrivastava, 2018). Concern and involvement with the environment are reflected in the company's environmental performance, while reports reveal the costs associated with environmental aspects of the company's operations (Xie et al., 2019). In addition to incurring environmental costs, . performance it must also pay attention to environmental performanceEnvironmental is a mechanism for companies to voluntarily integrate environmental concerns into their operations and their interactions with stakeholders, which exceeds organizational responsibilities in the legal field, environmental performance is the work done by companies in creating a good and green environment (Chuang & Huang, 2018). The government through the Ministry of Environment has initiated a program since 2002 to assess the performance of companies in environmental management, namely PROPER (Program Company Performance Rating in Environmental Management). The smaller the negative impact generated by the processes company's business on the environment, the better the assessment of the company's environmental performance (Appannan et al., 2023). Conversely, if there is significant environmental damage due to the company's activities, the company's environmental performance will be assessed unfavorable

The results of research (Erlangga, et al., 2021) and (Yuliani, Prijanto, 2022), show that there is a positive and significant effect on the application of Green Accounting on firm value. Then research (Mardiana, Wuryani, 2019) and (Pratama, et al., 2020) show that environmental performance has a positive and significant effect on firm value. Research examines the effect of green accounting and environmental performance on the profitability of mining sector companies and the consumer goods industry sector listed on the exchange Indonesia stock (Rabbani & Wuryaningsih, 2023).

The novelty in this study is the difference in the variable used is the company value as the dependent variable and the object of research is on the manufacturing companies in basic material sector listed on the Exchange Indonesia (IDX) Stock which have met the sample criteria (Wibisono, 2024). While green accounting variables are seen as from environmental costs measured using the formula of environmental development costs / net profit after tax (Xie et al., 2019). In previous studies, this environmental cost was measured using a dummy variable. Then, in previous studies, the firm value variable was measured using Tobin's Q. However, in this study the firm value variable is measured using Price to Book Value (PBV).

From several studies that have been conducted, it shows that there is a positive and negative relationship between green accounting practices, environmental performance, and firm value. Therefore, there is still a need for more studies, especially in the context of the manufacturing industry in the basic materials sector to fill the knowledge gap and provide new evidence on the effect of Green Accounting and environmental performance on firm value.

Foundation Theoretical

Dowling and Pfeffer (1975) introduced legitimacy theory which emphasizes the importance of social legitimacy for the sustainability of the company. According to this theory, legitimacy is the condition in which a company's value system is aligned with the social value system in the company operates. Companies should strive to convince society that they operate in accordance with accepted norms and boundaries, creating a social bond between the company and society. Changing societal expectations and norms require companies to continuously adapt to their environment (Lavín Fernández & Mazza, 2024). Legitimacy helps companies avoid negative views from society and can increase company value, so companies become more aware of the importance of relationships with society and the environment (Ellerup Nielsen & Thomsen, 2018).

Legitimacy is a strategic factor for businesses in developing the company the future. It is also used to strategize the business, especially in positioning itself in an ever-evolving society (Dehkordi, 2024). Legitimacy theory states that companies must comply with the norms that apply and are accepted by society to avoid sanctions (Burdon & Sorour, 2020).

In addition, this is theory relevant to the concept of green accounting, where the disclosure of environmental costs by companies shows transparency in the allocation of funds for environmental management. The . Companies that PROPER rating is one example of legitimizing recognition of corporate environmental responsibility consistently disclose their environmental activities and performance tend to have a more maintained viability (Guelmami et al., 2024).

Signal theory states that a signal is an attempt by the owner of information (management) to provide an accurate picture of the company to other (parties investors) so that they want to invest (Spence, 1973). This involves two parties: management as the signaler and investors as the receiver. The information provided affects investment decisions, where high corporate profits can increase the value of the company because it attracts investors.

According to this theory, the annual report is an important tool to convey information to external parties, including financial statements and programs environmental , which can increase the value of the company. Signaling can be done through disclosure of accounting information, financial statement notes, or details of management activities, to show that the company is better than its competitors.

RESEARCH METHOD

This study was conducted to test and analyze the effect of independent variables, namely green accounting and environmental performance on firm value as the dependent variable. This research is a study that uses a quantitative approach. According to Wahyudin (2015) quantitative research is quantifying data in a number or number so as to produce the information needed in data . analysis Quantitative research aims to explain an empirical phenomenon accompanied by statistical data, characteristics and patterns of relationships between variables.

Population

The population in this study are raw goods sector companies listed on the Exchange Indonesia Stock for 3 years, namely 2021-2023.

Sample

This research will be limited to basic material companies listed on the IDX during the 2021-2023. periodThe selection of the basic materials sector is based on the assumption that this sector has a greater potential environmental impact compared to other sectors, as they are involved in the extraction, processing, and production of raw materials such as metals, minerals, and chemicals. These activities often lead to air, land and water , pollutionas well as high natural resource use. company This basic material sector consists of 106 companies but there are several criteria that must be met by the researcher. technique The sampling used in this study is purposive sampling, , which where is a method of determining the sample sample with certain considerationsmembers will be selected in such a way that the sample formed can represent the properties of the population (Sugiyono, 2019). With the following sampling criteria:

1. Basic material sector companies listed on the Exchange Indonesia Stock in 2021-2023.
2. Companies that participate in the Environmental Performance Rating Assessment Program (PROPER) consecutively during 2021-2023.
3. Companies that have financial statement data in rupiah currency.
4. Companies that reported environmental costs during the study years 2021-2023

Variable Measurement

a) Green Accounting

In this study, green accounting variables are measured using environmental costs obtained from the company's annual financial statements and sustainability reports obtained from the official website of the Indonesia Stock Exchange (www.idx.co.id).

The formula for measuring environmental costs is as follows:

$$\text{Environmental Costs} = \frac{\text{Community Development Program}}{\text{Net Profit After Tax}}$$

b) Environmental Performance

This is variable measured using the results of the assessment the ofCompany Performance Rating Program in Environmental Management (PROPER) held by the Indonesian. Ministry of Environment

Table 1. PROPER Rating Assessment

No.	Rating	Value
1	Gold	5
2	Green	4
3	Blue	3
4	Red	2
5	Black	1

Source: Ministry of Environment and Forestry (2022)

c) Company Value

Measuring company value using valuation ratios is is further divided into several methods, one of which Price to Book Value (PBV). PBV is a ratio used to compare the share price of the book value per share (Saraswati et al., 2019). The indicator used to measure company value is using PBV:

$$\text{PricetoBookValue (PBV)} = \frac{\text{Market Price per Share}}{\text{Book Value per Share}}$$

$$\text{Book Value per Share} = \frac{\text{Total Equity}}{\text{Number of Shares Outstanding}}$$

RESULT AND DISCUSSION

a) Data Normality Test

Table 2. Test Results Normality

One-Sample Kolmogorov-Smirnov Test	
	Unstandardized Residual
N	60
Asymp. Sig. (2-tailed) ^c	.062

Based on table 2 shows the results of the One Sample Kolmogorov-Smirnov test with an Asymp. Sig value of 0.062. value This is greater than 0.05 so that the data in this study are said to be normally and distributed fulfill the assumption of normality.

b) Multicollinearity Test

Table 3. Test Results Multicollinearity

Model	Collinearity Statistics		Description
	Tolerance	VIF	
1 (Constant)			
Green Accounting	0.959	1.043	No
Environmental Performance	0.959	1.043	No

a. Dependent Variable: Firm Value

Based on table 3, a VIF a VIF value of 1.043 it that the proves test results do not occur multicollinearity because the tolerance value is above 0.1 and the 10. Where the .VIF value value of is has a below green accounting variable has a tolerance of value 0.959 and 1.043 and 0.959 and the environmental performance variable tolerance of value

c) Test Autocorrelation

Table 4. Test Results Autocorrelation

Model Summary ^b	
Model	Durbin-Watson
1	1.161

Based on table 4 of the Durbin-Watson autocorrelation test results above, it can be seen that the D-W value is 1.161. results These indicate that the research results are free of autocorrelation because the D-W value is between -2 and +2.

d) Heteroscedasticity Test

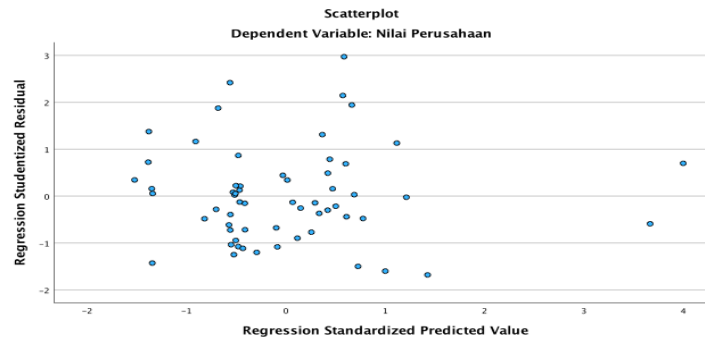


Figure 1. Heteroscedasticity Test Results

Based on the scatterplot graph above, it can be seen that the points spread randomly and are spread both above and below the number 0 on the Y and axis do not form a clear pattern. Random distribution and not forming a certain pattern indicates that there is no significant heteroscedasticity problem. So it can be concluded that there no isheteroscedasticity in the model regression.

e) Multiple Regression Analysis

Table 5. Results Multiple Regression Analysis

Coefficients ^a					
Model		Unstandardized		Standardized	
		B	Std. Error Beta	t	Sig.
1	(Constant)	1.890	.414	4.561	.000
	Green Accounting	3.407	1.405	.309	.019
	Environmental Performance	-.215	.133	-.207	.110

From table 5. then the multiple as linear regression equation can be written follows:

$$Y = 1.890 + 3.407X_1 - 0.215X_2 + e$$

Equation the regression can be explained that:

1. The constant value of 1.890 means that if all independent variables (green accounting and environmental performance) are, namely, 0, then the dependent variable firm value increases by 1.890.
2. The coefficient regression on the green accounting variable shows a positive value of 3.407. This means that if the green accounting variable increases by 1 unit with the assumption that the other independent variables remain, an increase in firm value of 3.407 will follow.

3. The coefficient of regression the environmental performance variable shows a negative value of 0.215. This means that if the environmental performance variable increases by 1 unit with the assumption that the other independent variables remain, a decrease in firm value of 0.215 will follow.

f) **Test Coefficient of Determination (R²)**

Table 6. Test Results of the Coefficient of Determination (R²)

Model Summary^b			
Model	R	R Square	Adjusted R Square
1	.335 ^a	.112	.081

Based on table 6, the R Square value is 0.112. value This indicates that 11.2% percent of green accounting and environmental performance variables affect firm value, while the remaining 88.8 percent is explained by other factors outside the study.

g) **Hypothesis Test**

Table 7 Test Results Partial (test t)

Coefficients^a				
Model		t	Sig.	Retrieved from
1	(Constant)	4.561	.000	Retrieved
	Green Accounting	2.424	.019	
	Environmental Performance	-1.621	.110	rejected

The test results obtained the $t_{\text{calculated}}$ value which is then compared with the t_{table} value. To find out $t_{\text{table}} = t(\alpha/2; n-k-1) = t(0.05/2; 60-2-1) = 2.002$; 57, therefore the t_{table} value is 2.002.

1. Hypothesis Testing 1

From table 7, it can be seen that the amount of t_{count} for the green accounting variable is significance 2.424 with a value of 0.019. Test results the statistical show that $t_{\text{count}} > t_{\text{(table)}}$ $2.424 > 2.002$. The significance of this study also shows a number smaller than 0.05 ($0.019 < 0.05$) as the standard of significance. results These indicate that green accounting has effect a significant on firm value. This shows that the that hypothesis green accounting has effect a significant on firm value is accepted.

2. Hypothesis 2

From table 7, it can be seen that the magnitude of t_{count} for the environmental performance variable is significance -1.621 with a value of 0.110. test results The statistical show that $t_{\text{count}} < t_{\text{(table)}}$ ($1.621 < 2.002$). The significance of this study also shows a number greater than 0.05 ($0.110 > 0.05$) as the standard of significance. results These indicate that environmental performance has no significant effect on firm value. This shows that the that hypothesis environmental performance has affect a significant on firm value is rejected.

CONCLUSION

The results indicate that the first hypothesis (H1) is accepted, demonstrating that green accounting has a significant effect on firm value. This suggests that a company's commitment to environmental concerns is crucial and can enhance its overall value. Therefore, the implementation of green accounting practices is expected to address various environmental challenges faced by companies, which can, in turn, positively influence their value. Conversely, the second hypothesis (H2) is rejected, as the environmental performance disclosed in the company's annual report has been shown to have no significant effect on firm value. This lack of support for the hypothesis may be attributed to the presence of other unexamined variables that exert a stronger influence on firm value.

Additionally, the factor of company compliance with regulations aimed at mitigating adverse environmental impacts has not been fully realized, resulting in insufficient environmental performance that could otherwise enhance company performance and, subsequently, its value. This study has limitations, particularly in its coverage of only a three-year period, which may be inadequate for capturing long-term trends and structural changes in the examined variables. Future research is recommended to encompass a longer time frame to better capture these long-term trends and structural changes, as extended data may provide a more representative and stable analysis of the effects of green accounting and environmental performance on firm value.

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