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GREEN ACCOUNTING IMPLEMENTATION AND ENVIRONMENTAL PERFORMANCE ON THE VALUE OF MINING COMPANIES LISTED ON THE IDX YEAR 2020-2023

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Abstract

***Background** : Raising awareness of the importance of protecting the environment and encouraging sustainable business practices.*
***Objective** : This study aims to test the effect of green accounting implementation and environmental performance on company value.*
***Research Method** : This research uses a quantitative approach. with technique observation and data analysis . The research sample is a mining company listed on the Indonesia Stock Exchange and participating in the PROPER program of the Ministry of Environment and Forestry of the Republic of Indonesia for the period 2020-2023. Hypothesis testing was carried out using SPSS software and multiple linear regression models.*
***Research Results** : The results of this study indicate that green accounting has a positive effect on company value, while environmental performance has no effect.*
***Originality/Novelty of the Research** : This research can contribute to additional literature related to research on green accounting and environmental performance in mining companies in Indonesia. This research also re-evaluates green accounting variables that still have different findings in previous studies and are considered relevant to the company's real actions in quantitative evaluation of environmental protection costs and effectiveness.*
***Keywords** : Green accounting, Environmental Performance, PROPER Rating, Company Value.*

INTRODUCTION

The development of the current business world requires many companies to follow the increasingly rapid global developments, due to increasingly tight business competition, where companies that are able to show the best value have their own views for the community. Therefore, many companies compete to improve their reputation in the eyes of the community by increasing the value of the company (Aulia & Mahdar. 2024). Suryani (2020) states that company value can be interpreted as the selling value of a company that describes its position as an ongoing business and reflects investor perceptions of the company. Company value is directly related to the stock price of a company, where investors estimate the level of success of a company, in line with how well the company performs, its value may go up or down (Yuliani & Prijanto. 2022).

In addition to being reflected in stock prices, company value can also increase through disclosures that show the extent to which the company cares and is responsible for the environment and society (Artamelia et al. 2021). In their research, Lestari and Khomsiyah (2023) stated that many companies actually damage the balance of nature and cause environmental damage. This statement is supported by the increasing number of cases of environmental damage caused by company operational activities and directly impacting company value (Widya Permata Sari & Machdar. 2023).

As companies increasingly cause negative impacts on the environment, many people urge companies to immediately address and control these negative impacts quickly so that they can be minimized. From the company's efforts to increase concern for the environment, a science has developed which is included in accounting which studies more deeply the relationship between companies and their environment, which is called *green accounting* . *Green accounting* is an accounting system that includes accounts related to environmental costs. *Green accounting* was developed to identify and reduce environmental damage caused by human activities and infrastructure. The implementation of *green accounting* shows that the company cares about the environment, through environmental costs listed in the company's financial statements for the environment (Hamidi. 2019).

Based on the results of previous research conducted by Lestari & Khomsiyah (2023), it shows that *green accounting* can affect company value. The results of this study are in line with research (Salsabila & Widiatmoko . 2022) using the same variable, namely *green accounting,* showing that company value can be influenced by *green accounting* . However, there are different findings in the research conducted by Sapulette & Limba. (2021), where the research conducted on the manufacturing company showed that there was no influence between the implementation of *green accounting* on company value.

The government's efforts to respond to environmental damage caused by the company's operational activities are also by forming a Company Performance Rating Assessment Program in Environmental Management (PROPER) in the field of environmental impact control. PROPER is in the form of giving gold, green, blue, red, and black ratings according to the assessment criteria given. Environmental performance is an assessment of the results of a company's environmental management related to environmental preservation (Wulaningrum & Kusrihandayani. 2020). Where the environmental performance assessment can influence public opinion and influence investment decisions. Companies with good environmental performance can increase the value of the company and maintain its survival, so that environmental performance becomes an important factor in investment decisions (Khairiyani et al.. 2019).

Based on the results of previous research conducted by (Wardani & Sa'adah. 2020) shows that environmental performance has an influence that leads to a positive relationship with company value. The results of this study are in line with the research conducted by (Sapulette & Limba. 2021) and (Lestari & Khomsiyah. 2023) which also concluded that there is a significant positive influence between environmental performance and company value. On the other hand, research conducted by (Khanifah et al. 2020) shows different results, where environmental performance has a negative and significant influence on company value. The results of this study are in line with research conducted by Salsabila & Widiatmoko (2022) which shows that there is no significant influence between environmental performance and company value.

This study was conducted to examine the effect of *green accounting implementation* and environmental performance on company value. This study is expected to add to the literature on *green accounting* and environmental performance studies that still show a gap in research results and the results are also expected to be used as input for companies whose activities have an impact on the environment to be able to implement *green accounting* in order to measure the benefits obtained from environmental management costs.

Literature Review and Hypothesis Formulation

Stakeholder Theory

Stakeholder theory is a theory that assumes that a company runs its business not only for its own interests but also for the interests of *stakeholders* . Therefore, *stakeholder theory* is also called a company's strategic plan which is prepared to continue the sustainability of the relationship between *stakeholders* , investors, government, suppliers, customers, society and also the environment (Angelina & Nursasi. 2021). According to Pratiwi & Hidayah (2023), *stakeholder theory* states that organizations will voluntarily choose to disclose information about their environmental, social and intellectual performance to meet the actual or recognized expectations *of stakeholders* . Company *stakeholders* have the right to know developments or information in the company, both mandatory and voluntary information by the company. According to Kusumawardani et al. (2018), *stakeholder theory* provides a perspective on the importance of running a business to balance various claims from stakeholders that conflict with the activities carried out by the company.

Basically, stakeholders have the expertise to manage or influence the use of economic resources used in the company's business operations. Therefore, the power of these stakeholders depends on the amount of stakeholder power over these economic resources. Companies that operate strive to meet the interests of *stakeholders* in order to work better.

Green accounting

Green Accounting according to Majidah & Aryanty (2023) is an accounting practice that identifies, measures, assesses, and discloses costs related to a company's environmental activities. *Green Accounting* provides information on how much funds the company allocates for environmental activities (Majidah & Aryanty, 2023). *Green accounting* is an accounting activity that includes the calculation and allocation of prevention costs or those incurred as a result of the company's operational activities that have a direct or indirect impact on the environment and society. *Green accounting* is one of the roles in accounting that is used to see the relationship between the company's environmental budget and the funds realized to carry out the company's operational activities (Lestari & Khomsiyah, 2023).

The implementation of *Green accounting* can be a consideration and used as a performance evaluation material in making decisions, especially for *stakeholders* . Therefore, companies have an obligation to include environmental costs or environmental welfare in the company's report. Environmental costs include all the most tangible costs (such as waste disposal), to measure uncertainty and are indeed basically related to important elements of good management decision-making such as products, processes, systems, or facilities (Hidayat et al. 2023).

Environmental Performance

Environmental Performance is a strategy implemented by a company to reduce the impact on the environment that occurs due to resource management, organizational processes that impact the environment, product recovery, environmental implications of products and services, compliance with environmental regulations, and interactions with stakeholders. Environmental Performance is considered low if the level of damage due to the company's operational activities is high (Williianti, 2020).

Environmental performance of a company can measured with ranking company in the PROPER program assessed by the Ministry Environment . System PROPER rating includes 5 color ratings that are scored consecutively, namely, Gold, Green, Blue, Red and Black. Here are is PROPER mechanisms and criteria :

a. PROPER Gold

A company will receive a gold PROPER rating if it has made environmental management efforts that exceed established standards and also implemented sustainable community development efforts.

b. Green PROPER

Companies that receive a green PROPER rating have also made environmental management efforts that exceed established standards and have several additional criteria.

c. PROPER Blue

A company gets a blue PROPER rating if it has made environmental management efforts according to the established criteria.

d. PROPER Red

Companies with a red PROPER rating have made environmental management efforts, but have not yet met all the required criteria.

e. PROPER Black

A company gets a black rating if it has not made efforts in environmental management according to the criteria and therefore has the risk of having a negative impact on the environment.

Green accounting and company values

Green accounting helps management in disclosing costs so that environmental costs incurred can be controlled and will have an impact on increasing company performance. In addition to cost control, *green accounting* can also prevent companies from environmental obligations so that it will minimize risks for *stakeholders* . Both of these things will make *stakeholders* provide support to the company. This is considered important because in achieving increased company value, the role of *stakeholders* is very much needed.

In a study conducted by Salsabila & Widiatmoko (2022), Lestari & Khomsiyah (2023), and Mirnawati & Dewi (2023) stated that *green accounting* has an effect on company value, which means that *green accounting* makes it easier for investors to assess the level of sustainable company development. This means that *green accounting* will make it easier for companies to get support from *stakeholders* .

H1: *Green accounting* has a positive effect on company value.

Environmental Performance and Corporate Value

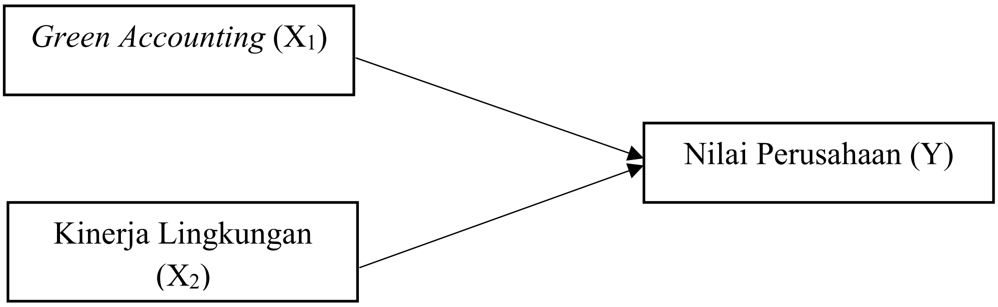
The company's environmental performance is assessed by how much impact the company has caused in carrying out its business activities and how the company processes waste from production activities. If the environmental damage caused is low, then the company's environmental performance is said to be good and vice versa, if the environmental damage caused by environmental operations has many negative impacts, then the company's environmental performance is categorized as poor (Chasbiandani et al. 2019). According to Dewi (2016) companies that have good environmental performance, indirectly have good social information so that they can increase the company's value.

Research by Wardani & Sa'adah. (2020); Sapulette & Limba. (2021) and Ade Dwi Lestari & Khomsiyah. (2023) shows that environmental performance affects company value. The interpretation of this statement is that the better the environmental performance of a company, the greater the benefits that will be obtained by *stakeholders* . This will make *stakeholders* satisfied with the responsibilities carried out by the company so that *stakeholders* will appreciate the company in terms of increasing the value of the company.

H2: Environmental performance has a positive effect on company value.

This research model is described as follows:

Figure 1. Research Model



This research uses a quantitative approach with technique observation and data analysis to test the influence of independent variables, namely *green accounting* and environmental performance, on the dependent variable, namely company value.

Population and sample

The population used in this study were all companies listed on the Indonesia Stock Exchange (IDX). The samples used were companies that disclosed environmental costs in their sustainability reports and companies that participated in the program of the Indonesian Ministry of Environment and Forestry (KLHK) in the period 2020-2023. The sampling technique used was purposive sampling. The criteria used in sampling were:

a. sector companies listed on the Indonesia Stock Exchange for 4 consecutive years in the 2020-202 3 period
b. Mining sector companies registered as PROPER participants consecutively in the 2020-202 3 period
c. Mining sector companies that disclose environmental costs in sustainability reports expressed in figures.

Data Types and Sources

The type of data in this study is secondary data taken from the Indonesian Stock Exchange website, the official website of the Ministry of Environment and Forestry of the Republic of Indonesia and the official website of each sample company.

Operational Definition of Variables

Dependent Variable

The dependent variable in this study is the company value variable. Company value is Investor response to the level of success of a company which is often associated with stock prices. The higher the stock price, the higher the value of the company. (Hapsoro and Ambarwati.2020). The company value in this study uses the Tobin's Q proxy.

Tobin's Q is calculated using the following formula:

$$\text{Tobin's Q} = \frac{\text{MVE + Total Hutang}}{Total\ Aset}$$

Independent Variables

The independent variables in this study are *green accounting* and environmental performance. *Green accounting variables* are measured using environmental costs. Measurement using environmental costs is related to the creation, detection, repair, and prevention of environmental damage. Environmental costs include all the most tangible costs (such as waste disposal), to measure uncertainty and are indeed basically related to important elements of good management decision making such as products, processes, systems, or facilities (Hidayat et al. 2023).

The calculation formula for *green accounting* according to (Hidayat et al.. 2023) is as follows:

$$\textit{Green accounting} = \frac{\text{Biaya lingkungan}}{\textit{Laba Bersih}}$$

The second independent variable is environmental performance which is measured with ranking company in the PROPER program assessed by the Ministry Environment . System PROPER rating includes 5 color ratings that are scored consecutively, namely, Gold, Green, Blue, Red and Black. Here are is PROPER mechanisms and criteria :

Table 2. Measurement of Environmental Performance Variables

Ranking color	**Score**
Gold	5
Green	4
Blue	3
Red	2
Black	1

Models Used

The research data were analyzed using multiple linear regression analysis. The research model was created as follows:

$$\mathbf{Y = \alpha + \beta 1GA + \beta 2KL + \varepsilon}$$

Information:

Y : Company Value

α : Constant

β1.β2 : Regression Coefficient

GA : *Green Accounting*

KL : Environmental Performance

Ɛ : Error Term (Interfering Variable)

Results and Discussion

Descriptive Statistics

The descriptive statistics table for the independent variable of firm value can be seen in table 3. The minimum value of the firm value variable is 0.54%, the maximum value is 2.24%, the average value is 1.2448%, and the standard deviation is 0.42572%.

Table 3. Descriptive Statistics of Dependent Variable Company Value

Variables	Min	Max	Mean	StDev
Company values	0.54 %	2.24 %	1.2448 %	0.42572 %

The descriptive statistics table for the independent variable *green accounting* is presented in table 4. The minimum value of the company value variable is -0.15%, the maximum value is 0.24%, the average value is 0.0181%, and the standard deviation is 0.05155%.

Table 4. Descriptive Statistics of Independent Variables *Green Accounting*

Variables	Min	Max	Mean	StDev
Green accounting	-0.15%	0.24 %	0.01881 %	0.05155 %

The descriptive statistics table for the independent variable of environmental performance is presented in Table 4. The minimum value of the company value variable is 3.00%, the maximum value is 5.00%, the average value is 3.9792%, and the standard deviation is 0.83767%.

Table 4. Descriptive Statistics of Independent Variables of Environmental Performance

Variables	Min	Max	Mean	StDev
Environmental performance	3.00%	5.00%	3.9792%	0.83767%

Table 6 shows the regression results of the dependent variable Company value with the independent variables *Green accounting* and Environmental performance. The adjusted R2 value in this study is 0.048 or 4.8%. The conclusion that can be drawn is that the independent variables *green accounting* and environmental performance have a simultaneous influence on the independent variable company value. The influence of the variables *green accounting* and environmental performance on the profitability variable is 4.8% and the remaining 95.2% is influenced by other variables not included in this study.

Table 6. Results of Regression Analysis

Variables	Coefficient
Constant	1,471
Green accounting	2,460
Environmental performance	-0.068
Adjust R2	0.048

The equation model created based on the test results is as follows:

$$\mathbf{Y = 1.471 + 2.460\ X_1 + -0.068\ X_2}$$

The partial test for each independent variable is explained as follows:

Green accounting and company values

Hypothesis 1 states that *green accounting* has a positive influence on firm value. The results of the partial test show that the coefficient value of the *green accounting variable* is positive and the significance value is 0.047, which is smaller than 0.05%. This means that the *green accounting variable* has a positive influence on the dependent variable of firm value. A positive influence means that if a company has a good allocation of environmental costs, it will affect the value of the company. Therefore, it can be concluded that the first hypothesis is accepted. *Green accounting* has a positive and significant influence on firm value.

The implementation of *green accounting* indicates that mining companies do not only focus on environmental exploration and exploitation but also participate in improving and managing the environment due to the impact of company activities. This positive and significant influence is supported by empirical data showing that the majority of companies studied have good environmental cost allocation in their company sustainability reports. This shows that companies continue to allocate environmental costs through the implementation of *green accounting* which is very important in the quantitative evaluation of environmental protection costs and effectiveness in order to gain legitimacy from the community so that it can increase the company's value.

Environmental performance and corporate value

Hypothesis 1 states that environmental performance has a negative effect on firm value. The partial test results show that the coefficient value of the environmental performance variable is negative and the significance value is 0.364

which is greater than 0.05%. This means that the environmental performance variable has no effect on the dependent variable of firm value.

Therefore, it can be concluded that the second hypothesis is rejected. Environmental performance has no effect on company value. The PROPER rating given by the Ministry of Environment and Forestry in this study has been empirically proven to have no impact on company value. In other words, if a company gets a higher or lower PROPER rating, it does not affect the company's value. The results of this study are consistent with research conducted by Septinurika. et al. (2020), Safitri. (2021) and Ramadhana. (2022) which states that companies with good environmental performance do not always mean they can offer benefits or advantages to investors, so not all investors view environmental performance as a factor that affects the company value of a company.

Conclusion

This study examines the effect of *green accounting* and environmental performance on company value. Based on the results of data analysis and discussion that have been presented above, it can be concluded that the *green accounting variable* has a positive and significant effect on company value while the environmental performance variable has no effect on company value. The implementation of *green accounting* shows the company's commitment to managing the environmental impacts that arise which will ultimately increase public trust in the company and will further affect the company's value because of the good views and investor trust in ensuring the sustainability of the company in the future.

The PROPER rating of environmental performance that has no influence in this study needs to be tested further to find out how the public understands and perceives the PROPER rating given by the Indonesian Ministry of Environment and Forestry. This is an indication that the PROPER rating is not considered the only way for investors to find out the company's concern for the environment, the dissemination of this information can also use other media, such as mass media, the internet, and so on. So even though companies that participate in PROPER are considered good by the market, it does not mean that it can affect the quality of the company and the interest of investors to invest their capital in the company.

This study has limitations that are expected to be improved in further research, namely the limited observation period in this study, so that the results do not reflect long-term conditions, then, the limited research sample because this study only used mining companies listed on the Indonesia Stock Exchange, and limitations in this study are also found in the measurement of *green accounting variables* , because not all companies disclose environmental costs incurred to maintain and manage the environment presented in the company's annual report. The results of this study are expected to provide insight and can be used as a reference by further research on *green* *accounting*, environmental performance and company value. With this study, it is also expected that investors will be more concerned with social and environmental issues by considering the implementation of *green accounting* and environmental performance by companies as a form of responsibility to the environment, where investors are one of the parties who can pressure companies to carry out and pay attention to social and environmental aspects.

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