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THE INFLUENCE OF ENVIRONMENTAL ACCOUNTING AND CORPORATE SOCIAL RESPONSIBILITY ON FIRM VALUE

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Abstract

This study aims to examine the influence of environmental accounting and corporate social responsibility on firm value. The population in this study consists of mining companies listed on the Indonesia Stock Exchange for the period 2020-2022. The sample was selected using purposive sampling with four criteria, resulting in 15 companies suitable for observation. This research employs multiple linear regression analysis using SPSS software. In this study, the environmental accounting variable is measured using the PROPER rating, the corporate social responsibility variable is measured using the GRI 4 index, and the firm value variable is measured using Tobin's q ratio.

Keywords : Environmental Accounting, Corporate Social Responsibility, Corporate Value

1. INTRODUCTION

A high corporate value attracts investors to invest their capital, resulting in businesses competing to gain more profits. However, the business activities conducted by these enterprises affect ecological balance and lead to environmental damage and social issues stemming from uncontrolled operational activities. Various environmental problems, such as the depletion of natural resources, excessive waste, and air pollution, have become international concerns. Environmental degradation is a frequent consequence of industrial activities. Companies in the mining sector, whose operations directly involve the utilization of natural resources, impact the environment and affect nearby communities (Partama, 2018).

PT Freeport Indonesia is one of the companies extensively exploiting mining resources, such as copper, gold, silver, molybdenum, and rhenium, which has led to environmental damage in Papua. This company is the largest taxpayer in Indonesia and the world's largest gold producer through the Grasberg mine. Freeport Indonesia has conducted explorations in two locations in Papua, the Erstberg mine since 1967 and the Grasberg mine since 1988, in the Tembaga Pura area, Mimika Regency, Papua Province (JTabarearno et al., 2019).

However, the activities of PT Freeport Indonesia generate tailing waste. The disposal of this waste has drawn attention from the Ministry of Environment and Forestry (KLHK) due to reports from local communities that waste discharged by PT Freeport has caused coastal area degradation, river pollution, and impacted several islands in Mimika. This activity has led to the disappearance of the Ajikwa river estuary, Piriri and Bidadari Islands, and posed threats to Kelapa and Yapero Islands. Moreover, local communities report that PT Freeport's tailing waste threatens residents' health due to the emergence of respiratory diseases (BETAHITA.ID, accessed April 4, 2023). Environmental damage from PT Freeport's activities has negatively impacted its public image.

Corporate value is a condition achieved by managers in managing company resources, serving as an image to the public and investors, often related to shares. Companies with significant investments are perceived positively by investors, causing stock prices to rise and benefiting corporate value. A company's stock value is influenced by factors such as environmental accounting and corporate social responsibility (CSR) disclosure (Wijaya & Sedana, 2015). Other factors affecting corporate value include profitability, good corporate governance, environmental performance, social performance, and economic performance. Among these, environmental accounting and CSR draw particular interest for further review because they influence long-term perceptions of corporate value and are considered in decision-making.

Today, each industry is required to implement environmental accounting (green accounting) as part of its environmental responsibility. Environmental accounting is a method that takes into account environmental resources, services, and changes aimed at increasing revenue and supporting sustainable development by balancing current and future needs. Environmental accounting (green accounting) is a contemporary accounting concept supporting green initiatives within companies by recognizing, quantifying, measuring, and accounting for environmental contributions in business processes. Environmental accounting impacts corporate value, as its implementation can bring positive developments and rebuild the company’s image in the eyes of the public, particularly in the use of its products, thereby potentially increasing corporate value. High corporate value can foster prosperity among shareholders, who, in turn, are inclined to invest their capital in the company.

One strategy employed to address corporate environmental damage is Corporate Social Responsibility (CSR). CSR has also grown as a response to dissatisfaction due to environmental pollution. Article 74, paragraph 1 of Law No. 40 of 2007 on Social and Environmental Responsibility states: “Companies conducting business activities in sectors involving and/or related to natural resources must implement social and environmental responsibility.”

The CSR implementation indicators are made known through disclosure in company sustainability reports. CSR evaluations within a company can be assisted by the Global Reporting Initiative (GRI), which focuses on economic, environmental, and social performance indicators. A good relationship between a company and its surrounding environment will positively impact the company's sustainability. Corporate Social Responsibility (CSR) involves a set of responsible actions by a company that goes beyond profit or corporate value alone. CSR affects corporate value, as proper CSR disclosure can enhance corporate value since investors tend to invest in companies accountable to stakeholders. CSR disclosure serves as a communication medium between companies and stakeholders. The more investors interested in a company’s stock, the higher its stock and corporate value (Anto et al., 2021).

Based on the background described, the problem formulation the writer aims to explore further is whether environmental accounting and corporate social responsibility influence the corporate value of mining sector companies listed on the IDX from 2020 to 2022. This topic requires in-depth study because it pertains to the management of environmental and social activities that genuinely contribute to a company’s goal of maximizing profits and enhancing corporate value. In this research, the Tobin's Q indicator is used to measure firm value. Tobin's Q is an indicator for assessing a company's performance, particularly regarding firm value, which reflects management's effectiveness in managing the company's assets. Tobin's Q can also be used to evaluate a company's performance in terms of its potential market value (Sudiyanto & Puspitasari, 2010).

The research conducted by Saputro (2023) explains that corporate social responsibility and green accounting have a partial effect on firm value. Similarly, Nugroho’s study (2023) also indicates that green accounting has a significantly positive effect on profitability and firm value. Saputra's (2023) research, titled The Influence of Green Accounting and Corporate Social Responsibility on Firm Value with Good Corporate Governance as a Moderating Variable: A Case Study of the Mining Sector Companies Listed on the Indonesia Stock Exchange, found that green accounting and corporate social responsibility partially influence firm value, but good corporate governance does not moderate the effect of green accounting and corporate social responsibility on firm value.

Tunnajah (2021), in their research titled The Influence of Green Accounting, Profitability, and Corporate Social Responsibility on Firm Value, found that green accounting, profitability, and corporate social responsibility do not have a significant impact on firm value. Similarly, Rajagukguk's (2020) study also concluded that corporate social responsibility does not significantly influence firm value.

Given the gaps in previous research results, the researcher is interested in conducting further study on the influence of environmental accounting and corporate social responsibility on firm value in the mining sector on the Indonesia Stock Exchange.

2. IMPLEMENTATION METHOD

The population in this study consists of mining companies listed on the Indonesia Stock Exchange (IDX) for the period 2020-2022, totaling 83 companies. The research sample includes 15 companies, with a research period spanning three years.

Data analysis uses a quantitative research method by conducting Multiple Linear Regression testing.

$$Y=\alpha+\beta1X1+\beta2X2+\varepsilon$$

Explanation:

- YYY = Company Value
- α\alphaα = Constant
- β1−β2\beta_1 - \beta_2β1−β2 = Regression coefficient of variables
- X1X_1X1 = Environmental Accounting
- X2X_2X2 = Corporate Social Responsibility
- ε\varepsilonε = Error

2.1 Classic Assumption Test

The analytical method used in this study is quantitative descriptive analysis. To simplify the analysis, this study uses SPSS software, which is used to analyze data and perform parametric and non-parametric statistical calculations. This includes classical assumption tests (multicollinearity test, heteroscedasticity test, normality test, and autocorrelation test), multiple linear regression analysis, and hypothesis testing.

2.2 Multicollinearity Test

The multicollinearity test aims to examine whether there is a high correlation between the independent variables in a multiple linear regression. According to Widarjono in (Safina, 2021), the multicollinearity test can be conducted using the following tools: a. If the tolerance is > 0.1 and the VIF value is < 10, then multicollinearity does not occur.
b. If the tolerance is < 0.1 and the VIF value is > 10, then multicollinearity occurs.

2.3 Heteroscedasticity Test

Heteroscedasticity refers to a condition where all independent variables have unequal error term variances. If heteroscedasticity does not occur, the regression model is considered good. The Scatterplot test is used to measure heteroscedasticity (Widarjono, 2015). Heteroscedasticity is not present if the significance value is above 0.05.

2.4 Normality Test

The normality test aims to examine whether the residual values are normally distributed. Data normality can be tested using the Kolmogorov-Smirnov test. If the significance value in the Kolmogorov-Smirnov test is greater than α = 0.05, then the data is normally distributed.

2.5 Autocorrelation Test

The autocorrelation test aims to examine whether there is a correlation between one period (t) and the previous period (t-1). In this study, the autocorrelation test is conducted using the run test. In this test, the significance value is observed to determine the presence or absence of correlation. The decision criteria for the run test are:

a. A correlation occurs if the Asymp. Sig. (2-tailed) value is < 0.05.

b. No correlation occurs if the Asymp. Sig. (2-tailed) value is > 0.05.

2.6 Individual Parameter Significance Test (t-Statistic Test)

The t-test is used to determine whether the independent variables individually affect the dependent variable. The decision criterion for the t-test is based on a significance level of 0.05. The hypothesis is accepted if the significance level is less than 0.05, and it is rejected if the significance level is greater than 0.05.

3. RESULTS AND DISCUSSION

4.1 Descriptive Statistical Test Results

The descriptive analysis of the data collected for this study consists of 45 observation data points. The description of the variables in the descriptive statistics used in this study includes the minimum value, maximum value, mean, and standard deviation.

	N	Minimum	Maximum	Mean	Std. Deviation
Environmental Accounting	45	3	5	3.73	.889
Corporate Social Responsibility	45	17582.0	63736.0	40293.067	12047.0015
Nilai Perusahaan	45	59981677.0	3843086062.0	1107100800.222	939888766.4450
Valid N (listwise)	45				

The results of the descriptive statistical test on environmental accounting (X1) show a maximum value of 5, belonging to PT Abm Investama in 2022, PT Adaro Energy Indonesia from 2020-2022, PT Bumi Resources from 2020-2022, PT Perusahaan Gas Negara from 2020-2022, and PT Bukit Asam from 2020-2022. This indicates that the environmental accounting (X1) of these companies in the years 2020-2022 is higher than the other samples. The minimum value of 3 belongs to PT Elnusa from 2020-2022, PT Energi Mega Persada from 2020-2022, PT ABM Investama from 2020-2021, PT AKR Corporindo from 2020-2022, PT Darma Henwa from 2020-2022, PT Mitrabahtera Sefara Sejati from 2020-2022, PT Petrosea from 2020-2022, PT TBS Energi Utama in 2021, PT Wintermar Offshore Marine from 2020-2022, and PT IMC Pelita Logistik from 2020-2022. This means that the environmental accounting (X1) of these companies in the indicated years is lower than that of the other samples.

The corporate social responsibility (X2) category shows a maximum value of 0.63736, belonging to PT Bukit Asam in 2022. This means that the corporate social responsibility (X2) of PT Bukit Asam in 2022 is higher than the other samples. The minimum value of 0.3956 belongs to PT Bumi Resources in 2022, meaning that the corporate social responsibility (X2) of PT Bumi Resources in 2022 is lower than the other samples.

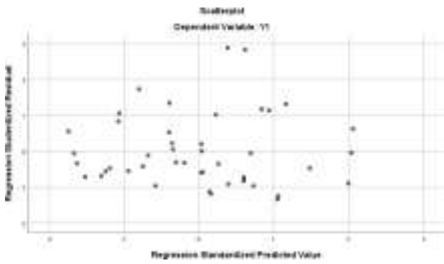
Model	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Collinearity Statistics Tolerance	Collinearity Statistics VIF
(Constant)	707166462.050	408028220.575		
Environmental Accounting	-221308936.815	77262505.415	.884	1.132
Corporate Social Responsibility	23760.758	7684.545	.884	1.132

4.2 Multicollinearity

Multicollinearity is a condition that occurs when two or more independent variables are correlated within a regression model. According to Widarjono in (Tunnajah, 2021), multicollinearity testing can be conducted using the following tools: a. If tolerance > 0.1 and VIF < 10, then multicollinearity does not occur. b. If tolerance < 0.1 and VIF > 10, then multicollinearity occurs.

The results of the multicollinearity test are as follows: Based on Table 4.3 above, it shows that the tolerance values are greater than 0.1, with environmental accounting at 0.884 and corporate social responsibility at 0.884. This means that there is no multicollinearity between the independent variables. Furthermore, the VIF values also indicate the same conclusion, where no independent variables have a value greater than 10. The VIF values for environmental accounting and corporate social responsibility are both 1.132. Thus, it can be concluded that there is no multicollinearity between the independent variables in the regression model.

4.3 Scatterplot Test



The results of the Heteroscedasticity Test (Scatterplot Test) above, it can be observed that the pattern spreads randomly without forming any specific pattern and is scattered both above and below zero on the Y-axis, indicating that heteroscedasticity does not occur. Therefore, this regression model is suitable for analyzing the effect of Environmental Accounting (EA) and Corporate Social Responsibility (CSR) on Firm Value.

4.4 Normality Test

N		45
Normal Parameters[a,b]	Mean	-.0000002
	Std. Deviation	919393278.91657260
Most Extreme Differences	Absolute	.122
	Positive	.122

	Negative	-.086
Test Statistic		.122
Asymp. Sig. (2-tailed)		.090c

As shown in Table 4.4, based on the results of the normality test (Kolmogorov-Smirnov), the data in this study is normally distributed, as evidenced by the normality test with an Asymp.Sig (2-tailed) value of 0.090, which is greater than the α value of 0.05 (0.090 > 0.05), in accordance with the criteria, meaning that the data in this study has a normal distribution.

4.5 Hypothesis test

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficient Beta	t	Sig.
1	(Constant)	707166462.050	408028220.575		1.733	.090
	Environmental Accounting	-221308936.815	77262505.415	-.410	-2.864	.006
	Corporate Social Responsibility	23760.758	7684.545	.442	3.092	.004

Based on Figure 4.6, the results of the calculation and multiple linear regression test show that the constant (α) of the regression model is 7.0716, and the regression coefficients (β) for each independent variable are β1 = -2.2130 and β2 = 2.3760. Based on these constant and regression coefficient values, the relationship between the independent and dependent variables in the regression model can be formulated as follows:

Y = 7.0716 - 2.2130 EA + 2.3760 CSR.

H1 Environmental Accounting has an effect on the company's value. The value of t is -2.864 and the Sig. value is 0.006 < 0.05. Rejected

H2 Corporate Social Responsibility has an effect on Firm Value. The t-value is 3.092 and the Sig. is 0.004 < 0.05. Accepted

According to the results of the hypothesis test that has been conducted and explained earlier, the Environmental Accounting variable has a negative and significant effect on the company value, as seen from the significance value of 0.006 < 0.05 and the negative regression coefficient value of -2.864. Based on these results, it means that the Environmental Accounting variable has a negative and significant effect on the company value. Therefore, the first hypothesis (H1), which states that Environmental Accounting has a positive and significant effect on the company value in the mining sector listed on the IDX for the period 2020-2022, is rejected.

This is in line with the research conducted by Siagian & Wijoyo (2022) and Irama & Samosir (2020), which shows that environmental accounting has a negative and significant effect on the company value. However, this study is not in line with the previous research conducted by

Erlangga et al. (2021), which shows that environmental accounting has a positive and significant effect on the company value in the mining sector.

According to the results of the hypothesis test that has been conducted and explained previously, the Corporate Social Responsibility (CSR) variable has an effect on the company's value, as seen from the significance value of 0.004 < 0.05 and a positive regression coefficient of 3.092. Based on these results, it means that the CSR variable has a positive and significant effect on the company's value. Therefore, the second hypothesis (H2), which states that CSR has a positive and significant effect on the company's value listed on the Indonesia Stock Exchange (IDX) during the 2020-2022 period, is accepted.

This aligns with the research conducted by Tunnajah (2021), which states that CSR has a positive and significant effect on the company's value. This is supported by the study by Rahmantari (2021), which shows that CSR has a positive and significant effect on the company's value. However, this research is not in line with the study by Loekito & Setiawati (2021), which states that CSR has a negative and insignificant effect on the company's value.

The assumptions from the partial test suggest that there is a direct relationship between CSR disclosure and the company's value, meaning that if a company increases its CSR disclosure, companies that engage in CSR activities and disclose them can increase public trust in the company's products and services, thereby improving the company's reputation in the eyes of the public. This is in accordance with the stakeholder theory, where companies that disclose good CSR activities have a broader level of relationship and disclosure compared to companies that do not disclose CSR. The CSR disclosure will have a positive impact on interested parties or stakeholders.

4. CONCLUSION

Based on the data analysis and discussion that has been conducted, the research on the effect of Environmental Accounting and Corporate Social Responsibility on Firm Value in the Mining Sector on the Indonesia Stock Exchange during the 2020-2022 period can be concluded as follows:

1. Environmental Accounting does not have a positive effect on the firm value of mining sector companies listed on the IDX during 2020-2022. The significance value of environmental accounting to firm value is below 0.05, which is 0.006. Environmental accounting has a significant negative effect on firm value because an increase in environmental costs by one percent will lead to a one percent decrease in firm value. Additionally, if environmental costs do not receive special attention, it will also affect the PROPER assessment conducted by the Ministry of Environment and Forestry.
2. Corporate Social Responsibility (CSR) has a positive and significant effect on firm value. The significance value of CSR to firm value is below 0.05, which is 0.004. Corporate social responsibility affects firm value, indicating that the company cares about the community and its surrounding environment, which is beneficial information for investors to invest in the company.

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