

# The Effect of Green Accounting on Financial Performance of Mining Companies Listed on the Indonesia Stock Exchange

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**Abstract.** The application of good green accounting by a company is a positive thing because with the application of good green accounting, the company has paid attention to the environmental impact and it is considered not only focused on improving the company's profit. The study is aimed at examining the implementation of green accounting on financial performance at the companies of mining listed in the Stock Exchange Indonesia. The research is qualitative. The study examined mining companies listed on the Indonesia Stock Exchange from 2015 to 2020 selected utilizing purposive sampling technique. The data were analysed with descriptive statistics and classic assumption tests. The research results show that the green accounting application significantly influences financial performance (ROA) of the firm with an influence of 6%.

**Keywords:** Green Accounting; Financial Performance; ROA.

## 1 Introduction

The application of green accounting is still a conflict among companies. The challenge in implementing green accounting is the company's willingness to spend a certain amount of money that will be allocated to improve and preserve the environment itself. But in reality, not all companies are willing and willing to spend some for the environmental costs, because of these costs, it will automatically reduce the amount of profit earned so that it will have an impact on the firm's financial performance. Is it true that green accounting application is detrimental to the company?

Several studies have been carried out by previous researchers related to green accounting, namely (Ningsih & Rachmawati, 2017); (Deb et al., 2020); (Abdurrahman, 2019); (Sulistiawati & Dirgantari, 2017); (Ulupui et al., 2020); (Chasbiandani et al., 2019); (Riyadh et al., 2020); (Magablih, 2017); (Hamidi, 2019); (Faizah, 2020). Although many studies have discussed green accounting, this study is different in object, time, and data analysis technique. This study is aimed to find out the influence of implementing green accounting upon the company's financial performance.

## **2 Literature Review**

### **2.1 Green Accounting**

The process of recognizing, measuring value, recording, summarizing, reporting, and disclosing information on objects, events, transactions, or impacts of, social corporate economic and environmental activities on society and the environment, as well as the corporation itself in one information reporting package. integrated accounting to be beneficial for the consumers in the assessment and return of economic and non-economic decisions is the meaning of green accounting (Lako, 2018). The aim of green accounting is actually to reduce environmental impact costs or social costs so that companies no longer need to incur these costs if they have been anticipated at the beginning of production (Magablih, 2017). But in reality, not all companies are willing and willing to spend a certain amount for these environmental costs.

### **2.2 Financial Performance**

One of the variables seen by investors when investing in a company is financial performance because good financial performance can attract investors to start or increase their investment in a firm. Financial performance displayed in financial statements can be used as a reference to determine the extent to which the company has achieved its achievement targets. On the other hand financial performance measurement is one of the indicators used by investors to evaluate a company from the stock market price on the Indonesia Stock Exchange. The better the company's performance, the higher the return the investors can get since generally investors will look for organizations that have the best presentation to put their capital in. As an issuer in the capital market, it is an achievement achieved by companies that issue shares that reflect the financial condition and results of operations of the company and are usually measured in financial ratios (Siregar, 2010).

In order to get an overview and information about development of financial performance, company need to do an analysis or interpretation to data of financial from companies that concerned and the financial data will reflected in the financial statements. The data can be seen from four ratios, namely: 1. Liquidity ratio namely the one to know the firm's capabilities finance operations and meet financial obligations at the collection's time; 2. The activity ratio is the ratio for know the company's capabilities in carrying out company activities day-to-day or company capabilities in sales, collection of accounts receivable as well as the use of assets that owned; 3. Profitability ratio, the one used in this study, is that one to know its capabilities in making a profit based on policies and decisions taken; 4. The solvency ratio is the one used to measure the level of company's assets financed by debt. The ratio used in this study is the profitability ratio.

### **3 Research Methods**

#### **a. Population And Research Sample**

The study explored all the mining firms included in the Stock Exchange of Indonesia during the 2015-2020 period. Through purposive sampling technique, the sample was selected. The sample was chosen based on the criteria below:

(1) All publicly listed firms in the Stock Exchange of Indonesia and they were still listed as issuers until December 31, 2020.

(2) The Companies were grouped based on the types of the mining sector listed in the Stock Exchange of Indonesia until December 31, 2020.

(3) Mining companies have complete data regarding variables.

The samples included in this study are PT Adaro Energy Tbk., PT Bayan Resources Tbk., PT Baramulti Sukses Sarana Tbk., PT Darma Henwa Tbk., PT Harum Energy Tbk., PT Indo Tambang Raya Megah Tbk., PT Delta Dunia Makmur Tbk., PT Mitrabara Adiperdana Tbk., PT Resource Alam Indonesia Tbk., PT Bukit Asam Tbk., PT. Petrosea Tbk., PT Golden Eagle Energy Tbk., PT TBS Energi Utama Tbk. To analyse the collected data of the research, Multiple Linear Regression was used as a data analysis processing.

#### **b. Operational Definition and Measurement of Variables**

##### **Green Accounting**

To measure the green accounting variable a dummy method was used. If the company under study has one component of the cost of environmental responsibility, environmental restoration, environmental management, and environmental rehabilitation in the annual report there are provisional costs such as demolition, removal, and reclamation, it will be given a score of 1, but if there is none it will be given a score of 0.

##### **Financial performance**

Financial performance reflects the fundamental performance of the company in which the data were collected from financial statements. Meanwhile, financial performance in the study was measured utilising return on assets (ROA). The ROA was counted using the formula below:

$$ROA = \frac{\text{Net Profit}}{\text{Total Asset}}$$

#### **c. Data Analysis Method**

Analysis of the data in this study using the SPSS (Statistics Product & Services Solution) version 20.0 program. Before testing the hypothesis, the classical assumption test is first performed. Classical assumption test consisting of normality test, multicollinearity test, and heteroscedasticity test.

## 4 Results and Discussion

**Table 1.1**  
Company ROA Data That Became The Research Sample

Nama Perusahaan	ROA					
	2015	2016	2017	2018	2019	2020
ADRO	2,5	5,2	7,9	6,8	6	2,5
BSSR	15	15	39	28,18	12,15	11,59
BYAN	-8,7	2,2	38	45,6	18,3	21,3
DEWA	0,1	0,12	0,14	0,69	0,77	0,67
DOID	-1	4,2	4,9	6,4	1,7	1
HRUM	-5,1	3,2	9,9	6,8	4,1	11,8
ITMG	5	11	19	18	11	3
MBAP	31,75	23,3	36,47	29	18,33	15,09
KKGI	5,76	9,6	12	1	1	1
PTBA	14,61	13,62	26,83	20,78	15,54	9,92
PTRO	0,48	-2,98	-1,99	1,9	3,48	1
SMMT	-8	-3	6	5	9	1
TOBA	0,1	0,1	0,1	0,1	0,1	0,05

### A. Descriptive Statistics

Table 1.2  
Descriptive Statistics

	Mean	Std. Deviation	N
ROA	87.785	1.121.305	78
GA	.85	.363	78

The results of calculation using the descriptive statistical test can explain that the total financial performance (ROA) of the mining firms for the 2015-2020 period with the amount of data (n) was 78. The standard deviation got was 11.21305, while the mean value is 8.7785. Furthermore, the application of green accounting with a total of 78 data (n) has a standard deviation of 0.363, while the mean value is 0.85.

## B. Inferential Statistics (Simple Linear Regression Test) Results

Table 1.3  
Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	1.641	3.134		.524	.602
	GA	8.435	3.407	.273	2.476	.016

a. Dependent Variable: ROA

The simple linear regression test showed that the significant value of green accounting is 0.016 ( $p < 0.05$ ), therefore the hypothesis is accepted, meaning that the green accounting variable has a significant effect on financial performance (ROA). From the results of the simple linear regression test, the following regression equation is obtained:

$$\text{ROA} = 1.641 + 8.435x + e$$

1.641 as constant indicates that if there is no change in the independent variable, the financial performance is 1.641. The value of green accounting as X is 8.435 which indicates if the value of the variable increase by 1 score, the value of financial performance will increase by 8.435.

## C. Classic Assumption Test

### a) The Results of Normality Test

Normality test displayed that the significance value of Asymp, Sig (2-tailed) is 0.160, which is greater than the significance value of 0.05 ( $0.160 > 0.05$ ). So it can be concluded that the results of the Kolmogorov-Smirnov test that have been carried out are normal.

### b) Heteroscedasticity Test Results

The results of the heteroscedasticity test can be explained that the value of Sig (2-tailed) for the green accounting variable is 0.316. Because the value of the independent variable is greater than 0.05, a conclusion may be drawn that there is no symptom of heteroscedasticity. This means that the regression model in this study is feasible to use.

### c) Multi-Collinearity Test

The results of the multi-collinearity test can be said that there is no multi-collinearity because the value of VIF  $< 10$  is 1.00. So it can be concluded that the data in this study does not occur multi-collinearity because the VIF value is less than 10 so it can be stated that the model does not experience symptoms of multi-collinearity.

#### d) Hypothesis test results

##### R<sup>2</sup> Test Results (Determination Coefficient)

The calculation of the determination coefficient indicated that the value of the coefficient of determination is 0.062 or 6%. This means that the contribution of the green accounting variable to financial performance (ROA) in the firms during the determined period of time is 6%, the remaining 94% is influenced by other variables outside this research model.

## 5 Conclusion

The application of green accounting has a significant effect on financial performance (ROA), but its contribution is only 6% while the rest is influenced by other variables. It turns out that the application of green accounting if we look at it from an economic point of view, by recording and disclosing the company's environmental costs, it is hoped that investors can consider the information. So that in making decisions, investors do not only focus on company profits.

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