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The Effect Of Environmental Costs And Environmental Performance Disclosures On Profitability (Empirical Study On Mining Companies Listed On The Indonesia Stock Exchange)

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ABSTRACT

This study aims to test and analyze empirically the effect of environmental costs and environmental performance on profitability. The population in this study is a mining company registered with the Indonesia Stock Exchange Data Service Division and has obtained a PROPER rating. The research sample is 55, with 11 companies as objects obtained by saturated sampling technique. The research method in this study is quantitative associative. The data analysis technique used is panel data regression analysis. The results of the study prove that environmental costs have a significant negative effect on profitability, while environmental performance has no significant negative effect on profitability.

Keywords: Environmental costs, environmental performance, profitability

INTRODUCTION

Profitability becomes a benchmark for effectively and efficiently assessing the success of an enterprise to generate a certain level of profit. According to Gustin (2017) profitability has an important goal to maintain the company's survival in the long term, because it will determine whether the company has good prospects in the future. To measure the profitability of a company, one of them can use ROA which measures overall effectiveness in terms of profit income through assets used for company operations.

The company must have its sustainability concept in place to measure the value of its future success. This concept is known as the Triple Bottom Line created by Elkington. The Triple Bottom Line consists of 3P, namely profit, people, and planet. In this concept, it is explained that the company in carrying out its operational activities does not only focus on maximum profit, but must pay attention to and be directly involved with the welfare of the community and can contribute to the management of the surrounding environment.

Environmental performance creates a good environment which is assessed using the Company Performance Rating Assessment Program in Environmental Management (PROPER) developed by the Ministry of Environment and Forestry is an effort to encourage a company to improve environmental management and become an information on the environmental performance of each company to all stakeholders. Good environmental performance means that the company has used the costs incurred to fulfill the company's responsibilities, if the disclosure of company information is good, it is hoped that this can be a consideration for stakeholders to make decisions. This is in line with research conducted by (Ayu Mayshela Putri, 2019) that environmental performance has a positive effect on profitability. A high PROPER rating proves that the better the environmental performance, the more it can increase profitability, and the better the Green Accounting of a company, the higher its profitability. Research conducted by (Praditya Kusuma Wardhana, 2017) revealed that environmental performance has a positive effect on profitability, this is because the relationship between environmental performance and profitability to company value shows that environmental performance is a sensitive issue in the eyes of stakeholders.

Costs arising from the activity of responsibility are environmental costs. Environmental costs are costs incurred by the company to minimize the occurrence of damage or negative impacts produced by the company due to its operational activities both intentionally and unintentionally. Environmental costs incurred for environmental responsibility appropriately and optimally will have an effect on the company, namely having a sustainable business and being beneficial for the long term to preserve nature. This will make the company's image better in the future and the trust of stakeholders will increase in the company so that they will dare to invest in the company. This is in

line with the research conducted (Lastri Meito Nababan et al., 2019) that environmental costs have a significant influence on financial performance (Return on Asset), the higher the EnC value, the higher the ROA value. This is further reinforced by research (Vieni Angelita Buana et al., 2017) that environmental costs affect ROA. Because environmental costs are costs incurred by companies to prevent environmental damage due to business activities carried out by the company.

Environmental performance and environmental costs are closely related to each other, environmental performance will not run if there are no costs incurred, if the costs incurred are small but the company is able to maximize these costs, then it can be said that the performance of the company is good. Environmental performance can be measured by how much the company is able to maximize the costs incurred for the environment, so that the environment can return to its original state and even provide value to the surroundings.

Legitimacy Theory

The theory of legitimacy states that carrying out social responsibility is carried out by the company in order to get legitimacy from the society in which the company is located. Companies that are said to have been legitimized will make the company's image good in the eyes of the public and can make stakeholders' trust increase. The basis of this theory of legitimacy is the "social contract" between the company and the society in which the company operates and uses economic resources. The company will get legitimacy from the community if the company has implemented good things to the environment around the company such as being responsible for the surrounding environment and not making the ecosystem around the environment polluted. The company in carrying out its operational activities is expected to maintain the sustainability of its environment properly. Good performance will create a good reputation also in the eyes of stakeholders.

Stakeholder Theory

Stakeholder theory is a theory that explains the relationship between a company in carrying out its operations and its stakeholders, namely shareholders, creditors,

government, society, consumers, suppliers, and other parties). In order for the company to be viewed well by stakeholders, the company not only operates to attach importance to its own needs but the company must be able to provide other goals such as creating great value for stakeholders, namely in terms of economy and social. In terms of the company's economy as much as possible to make profits from year to year remain stable or increasing, stakeholders themselves expect this in the long term because stable or increasing profits will measure the good performance of a company. From a social point of view, it is to build a good relationship between the company and the community by protecting the environment around the company, if the company causes environmental pollution, the company will be bad in the eyes of stakeholders.

Environmental Costs

Environmental costs according to Hansen and Mowen (2009) are costs that occur due to the poor environmental quality that may occur. Thus, environmental costs are associated with the creation, detection, repair, and prevention of environmental degradation. According to Schaltegger the classification of environmental costs is divided into two, as for these costs are:

1. Environmental costs are internal

   The various environmental costs that are internal include: waste enforcement costs, training costs with environmental problem activities, environmental certification costs, fees for managing permits, and others.

2. Environmental costs are external

   The various environmental costs that are internal include: the cost of decreasing natural resources, the cost of noise pollution, air, and water, and others.

Environmental Performance

Environmental performance is the ability of a company to be able to make a better surrounding environment in order to reduce environmental damage that has been caused (Lako, 2018: 105). PROPER (Performance Rating Assessment Program in Environmental Management) is an indicator of environmental performance measurement. The purpose of holding PROPER is to measure the level of compliance

of the company based on applicable regulations and announced to the public so that the assessed company obtains an intensive or reputational disincentive that will depend on the level of compliance. The result of PROPER is in the form of a ranking with 5 colors, namely gold, green, blue, red, and black with a scale of 5-1.

Profitability

Profitability is the ability of a company to generate a return on the company's operational activities related to sales and investment (Horne and Wachowicz, 2012: 148). Profitability is the ability of a company to generate a return on the company's operational activities related to sales and investment (Horne and Wachowicz, 2012: 148). Profitability serves as a presenter of data related to company profits over time, so that the data can be used as a means of evaluating stakeholders and also to find out the amount of profit obtained by the company generated by total assets and total equity owned by this research, the type of research used is RoA. RoA is useful for assessing the company's performance related to the profits generated against its assets. The higher a company produces RoA, the better the company's performance.

Statement of Scientific Novelty

The thing that distinguishes this study from other studies is that in this study the number of periods used was 5 years, in environmental performance only used a score of 3-5 (blue, green, and gold colors).

Effect of Environmental Costs on Profitability

Environmental costs are costs incurred by companies in minimizing the occurrence of negative impacts that will result from their operational activities. The costs incurred by the company will have a positive influence on the environment, which this influence cannot be felt directly on the spot, but this influence will be felt in the long term. Environmental costs can be said to be a long-term investment of an enterprise because the funds spent can give the company a good name.

This is in accordance with Camilia's research (2016) that the community development program that will form environmental costs is published, it will be able to increase the good name which will affect competitive advantage and this can be a good strategy in increasing sales profits. According to research by Buana and Nuzula (2017) found that environmental costs have a positive effect on Profitability (ROA).

The company will allocate environmental costs when the company is doing environmental management aimed at overcoming the impact that the company will produce, but for some companies will consider these environmental costs will only increase the burden on the company which will lead to a reduction in profits. In fact, with the allocation of environmental costs, the company will gain the trust of the surrounding community because it has shown its concern for the surrounding environment. This will make the image of a company better in the eyes of stakeholders and can make productivity increase.

H1 = Environmental Costs Affect Profitability

Effect of Environmental Performance on Profitability

Environmental performance is the ability of a company to be able to make a better surrounding environment in order to reduce the environmental damage that has been caused. If the company has high environmental performance, the company tends to have a low level of pollution, so that with a low level of pollution, it will make the image of a company good in the eyes of stakeholders.

Research conducted by Rosita (2015) that there is a positive influence between environmental performance and profitability. Titisari e al (2012), Eka sulistiawati et al (2016), Ayu Mayshela Putri et al (2019), and Praditya Kusuma Wardhana (2017) also argue that environmental performance has a positive effect on profitability.

Environmental performance is one way for companies to increase their profitability. Kinerja lingkungan yang baik akan membuat citra serta reputasi perusahaan menjadi baik juga. If the company already has a good image in the eyes of the public and stakeholders, the company is expected to increase its sales which will

later attract the hearts of stakeholders because the profits generated are large. Reporting company activities related to good environmental performance will make stakeholders make positive values to us.

H2 = Environmental Performance Affects Profitability

Research Objectives

The research objectives based on the above background are as follows:

1. To test and analyze the effect of environmental costs on the profitability of the enterprise.
2. To test and analyze the effect of disclosure of environmental performance on the profitability of the enterprise.

RESEARCH METHODS

1. Data Sources

The data sources in this study used secondary data. Secondary data is obtained from the official website of the Indonesian Stock Exchange (www.idx.co.id), PROPER (https://proper.menlhk.go.id/), and the official website of each company in the form of financial statements, annual reports, sustainability reports, and PROPER reports.

2. Population and Sample

The population in this study is a mining company that is listed in the Indonesia Stock Exchange Data Service Division and has obtained a PROPER rating of at least Blue. The population in this study was 11 companies. In the study, the sample technique used was saturated sampling (census). Saturated sampling is a sampling technique that determines that all members of a population are used as a sample. This is due to the very small number of the population.

3. Variable Operational Definition

a. Dependent Variables

The dependent variable in this study is profitability as measured using Return on Asset (RoA).

b. Independent Variables

The independent variables in this study are:

1) Environmental Costs

Environmental costs are obtained from the allocation of each exploitation activity in the amount of a percentage determined by each enterprise allocated from the total cost of production. Information regarding the percentage allocated can be accessed from the Financial Statements (CALK) of each company.

2) Environmental Performance

Environmental performance can be seen in the PROPER (Performance Rating Assessment Program in Environmental Management) report published by the Ministry of Environment. This assessment is carried out by giving a score of the predicted ranking with the numbers 5-1. PROPER ratings are grouped in five color ratings namely GOLD, GREEN, BLUE, RED, and BLACK. Companies that get gold will be given a score of 5, green with a score of 4, blue with 3, red with a score of 2, and black with a score of 1.

4. Data Analysis Techniques

The data analysis technique used in this study used panel data regression analysis. Panel data regression is a combination of cross section data and time series data. The panel data regression equation in this study is as follows:

$$RoA = \alpha + \beta_1 \text{Environmental Costs} + \beta_2 Environmental\ Performance + e_{it}$$

Information:

α : Coefficient

β_1 β_2 : Coefficient of independent variables

RESULTS AND DISCUSSION

a. Descriptive Statistical Test

The independent variables in this study are environmental costs and environmental performance, and the dependent variable in this study is profibility. From these three data, descriptive statistical testing was carried out, the results were obtained with the Eviews 10 software as follows:

Tabel 4.6 Descriptive Statistical Test Results

	Y	X1	X2
Mean	0.137274	0.130358	3.687500
Median	0.121000	0.128762	4.000000
Maximum	0.291000	0.152128	5.000000
Minimum	0.033000	0.117227	3.000000
Std. Dev.	0.067725	0.008822	0.624202
Skewness	0.259993	1.008330	0.321175
Kurtosis	1.979929	3.353664	2.340726
Jarque-Bera	2.621862	8.383985	1.694513
Probability	0.269569	0.015116	0.428589
Sum	6.589134	6.257169	177.0000
Sum Sq. Dev.	0.215573	0.003657	18.31250
Observations	48	48	48

Source: Processed by Eviews 10

Based on table 4.6 above, it shows that the observation results are 48. This result was obtained from 11 companies with 5 periods, but there were 7 samples that were not analyzed because there were outliers from the data. In the dependent variable in the form of profitability (Y1), it can be known that the maxim, minimum, mean, and standard deviation values are 0.291000, 0.033000, 0.137274, and 0.067725. The maximum value of 0.291000 is found in the company J Resources Asia Pasifik Tbk in 2019 while the minimum value of 0.033000 is found in the Mitrabara Adiperdana Tbk company in 2020 The standard deviation value of 0.067725 < the mean value of 0.137274 indicates that the average value of the profitability variable is quite good because it has a lower error standard.

In independent variables in the form of environmental costs (X1), it can be known that the maxim, minimum, mean, and standard deviation values are 0.152128, 0.117227, 0.130358, and 0.008822. The maximum value of 0.152128 is found in the Indo Tambangraya Megah Tbk company in 2017 while the minimum value of 0.117227 is found in the company Medco Energi Internasional Tbk in 2020 and 2021 The standard deviation value of 0.008822 < the mean value of 0.130358 indicates that the average value of the environmental cost variable is quite good because it has a lower error standard.

In the independent variable in the form of environmental performance (X2), the maxim, minimum, mean, and standard deviation values can be seen are 5.000000, 3.000000, 3.687500, and 0.624202. The max and minimum values are almost owned by every company. The standard deviation value of 0.624202 < the mean value of 3.687500 indicates that the average value of the environmental performance variable is good enough because it has a lower error standard.

Based on the results of descriptive statistical tests, all research variables above show a greater mean value. versus the standard deviation value. This shows that the data in this study is quite good because it has a low standard error value.

b. Test The Data Regression Panel

The selected model is the Common Effect (REM) for panel data regression. The following are the results of processing panel data regression analysis using Eviews 10 software:

Tabel 4.13 Panel Data Regression Estimation Results

Variabel	Coefficient	Std. Error	t-Statistic	Prob
C	0.492280	0.164839	2.986425	0.0046
X1	-2.567044	1.101.524	-2.330447	0.0243
X2	-0.005525	0.015567	-0.354898	0.7243

Source : Processed by Eviews 10

Based on table 4.13 above, the regression equation resulting from the regression analysis of the panel data above is as follows:

RoA = 0.492280 - 2.567044 Environmental Costs - 0.005525 Environmental Performance + e…

Based on the results of the equation above, it can be interpreted as follows:

1) Based on the results of the regression equation above, it shows that the value of the constant is 0.492280, where if the value of the free variable (environmental costs and environmental performance) shows a value of 0, then the profitability value (ROA) is 0.492280
2) The environmental cost variable has a regression coefficient of - 2.567044, where the environmental cost variable has a negative influence that will reduce the value, so that if the environmental cost variable increases by 1, then the profitability variable will decrease by 2.567044
3) Environmental performance variables have a regression coefficient of as large as - 0.005525, where the environmental performance variable has a negative influence that will reduce the value, so that if the environmental performance variable increases by 1, then the profitability variable will decrease by 0.005525.

c. Test F

Here is a table of F test results:

Tabel 4.15 Test F

R-squared	0.107851	Mean dependent var	0.137274
Adjusted R-squared	0.068199	S.D. dependent var	0.067725
S.E. of regression	0.065375	Akaike info criterion	-2.556900
Sum squared resid	0.192324	Schwarz criterion	-2.439949
Log likehood	64.36559	Hannan-Quinn criter.	-2.512704
F-statistic	2.719.90	Durbin-Watson stat	1.072701
Prob(F-statistic)	0.076709		

Source*:* Processed by Eviews 10

Based on table 4.15 the value of Prob(F-statistic) is 0.076709. The result of the F-statistical Probability value (0.076709) < α (0.05) so that based on the decision criteria it

can be concluded that H0 is accepted. Then environmental costs and environmental performance simultaneously have no effect on Profitability.

1. Research Results

This study obtained the results of panel data regression with the Common Effect Model with the results:

a. The probability of F-statistics (0.076709) < α (0.05) so based on the decision criteria it can be concluded that H0 is accepted. Then Environmental costs and Environmental performance simultaneously have no effect on Profitability.
b. The value of the coefficient of environmental costs is -2.567044 and its Prob(t-statistic) value is 0.0243, which means that H1 is accepted. This suggests that environmental costs have a significant negative effect on profitability.
c. The value of the environmental performance coefficient is -0.005525 and its Prob(t-statistic) value is 0.7243, which means that H0 is accepted. This suggests that environmental performance has an insignificant negative effect on profitability.

2. Discussion

a. Effect of Environmental Costs on Profitability

The results showed that environmental costs have a significant negative effect on profitability, it can be concluded that the first hypothesis is accepted. Based on the results of this study, it can be said that the small amount of environmental costs incurred by companies for environmental management either internally or externally which aims as a form of corporate responsibility to the environment is not always directly proportional to the value of the company or there is no influence of environmental costs on the amount of profit of mining companies listed on the Indonesia Stock Exchange.

The results of this study are in line with research conducted by Lastri Meito Nababan et al (2019) that environmental costs have a significant influence on financial performance (Return on Asset), the higher the EnC value, the higher the ROA value. This is further reinforced by the research of Vieni Angelita Buana et al (2017) that environmental costs affect ROA. Because environmental costs are costs incurred by

companies to prevent environmental damage due to business activities carried out by the company.

b. Effect of Environmental Performance on Profitability

The results showed that environmental performance had an insignificant negative effect on profitability. It can be concluded that the second hypothesis that explains environmental performance affects profitability is accepted. Because PROPER is a reference for stakeholders and the community in internal activities. If in PROPER the company gets gold, green, and blue colors, it means that the company has carried out its responsibility to become a company that cares about the surrounding environment because the environmental performance of a company is one of the things that is very concerned about by the public. One of them is about the rest of the waste management if it is simply disposed of, it will damage the environment around the company.

The results of this study are in line with the research of Ayu Mayshela Putri et al (2019) that environmental performance has a significant impact on RoA profitability. Because the magnitude of the PROPER level can be proven through good environmental performance. This research is also supported by research by Eka Sulistiawati et al (2016) that environmental performance has a positive impact on profitability. If the company's performance is getting better, this will make stakeholders, especially the community, more confident in the company that the company in carrying out its operational activities involves the surrounding environment so that it is not affected.

CONCLUSION

This study was conducted with the aim of determining the impact of Environmental Costs and Environmental Performance on Profitability. The population in this study is mining companies listed on the Indonesia Stock Exchange with variable environmental costs and environmental performance in 2016-2020 and variable profitability in 2017-2021. The number of samples in this study was as many as 55 companies. The results of this study show that environmental costs have a significant

negative effect on the profitability of mining companies, while environmental performance has a negative effect on the profitability of mining companies.

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