Does Environmental Performance in Green Accounting Affect Profitability?

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Abstract
This study aims to examine the effect of implementing Green Accounting as measured by Environmental Performance and Environmental Disclosure on Profitability. The t test was used as the method of analysis. The research sample is additional companies listed on the Indonesia Stock Exchange in 2017-2020. The results showed that environmental performance had no effect on profitability, while environmental disclosure had an effect on the profitability of mining companies. The demands on environmental performance made by the company are more directed at companies with large sizes, not to companies with high profitability. Furthermore, environmental disclosure is a means to meet the expectations and needs of stakeholders who want to learn more about the company's environmental performance through annual reports. If the ROA value is not in prime condition, it will have an impact on the company's environmental disclosure.

Keywords: Green Accounting, Environmental Performance, Environmental Disclosure, Profitability

INTRODUCTION
Evaluation of organizational capacity is synonymous with profitability as the basis for measuring its performance (Munawir, 2014), even though environmental and social issues also play an important role for the company apart from profit goals (Sulistiawati & Dirgantari, 2017). A report is needed to solve the deadlock of the problem between companies that carry out environmental impact activities and the people who feel the impact. Green Accounting can be said as one of the solutions (Ikhsan, 2018). Green accounting has three qualitative characteristics (accountability, transparency, and integrity) which are very helpful in assessing the evaluation of user decision making (Lako, 2018). In addition to aiming to link the environmental budget side to the company's operational costs, it is useful to make companies aware of the impact of managing resources on the community (Ningsih & Rachmawati, 2017). In its application green accounting is reflected in financial records integrated with social and environmental information (Hardianti, 2017).

Previous research on the theme of green accounting which is measured using environmental performance and environmental disclosure has been widely carried out. Study Sulistiawati & Dirgantari (2017), Lestari, Aisyah Nadira, Nurleli, & Helliana (2019), Suwisno & Rosdiana (2021), (Wangi & Lestari, 2020) and Kholmi & Nafiza (2022) found that environmental performance has an influence on company profitability. Environmental performance reflects the company can provide a good environment (green accounting) (Tahu, 2019), focuses on company activities in preserving the environment and reducing
environmental impacts arising from company activities (Hadriyani & Dewi, 2022). Environmental performance is measured using the Company Performance Rating Program in Environmental Management (PROPER), indicating that environmental performance can be taken into consideration for the public to see the company's financial performance, because the company's positive image can increase public interest in purchasing company products, which will have an impact on improvement of financial performance (Asjuwita & Agustin, 2020). Contrary to opinion Widyowati & Damayanti (2022), Ningtyas & Triyanto (2019), and Faizah (2020) which states that there is no relationship between financial performance and profitability. This condition is because the demands on environmental performance are more directed at companies with large sizes, not to companies with high profitability (Asjuwita & Agustin, 2020).

The implementation of green accounting in terms of environmental disclosure provides many advantages for the company (Goddess & Edward Narayana, 2020), because it can increase trust and image to stakeholders (Lestari et al., 2019). The results show that environmental disclosure has an impact on company profitability (Lestari et al., 2019), (Hadriyani & Dewi, 2022), and (AA Ningtyas & Triyanto, 2019). Because with environmental disclosure, the public can see the company's activities in carrying out their operations which have an impact on the company's legitimacy. Public assessment and experience of company performance affect buying decisions so that if consumers have good experiences, they will tell other consumers (Akhtar, Xicang, & Iqbal, 2017). When the company has a good image in environmental management, the company will be accepted by the community. On the other hand, the phenomenon of environmental disclosure is not widely carried out by companies because there is a tendency that only companies that have positive information are ready to disclose their environmental activities (Sulistiawati & Dirgantari, 2017). This condition is in line with the results of research showing that environmental disclosure has no effect on profitability ((Kholmi & Nafiza, 2022), (Widyowati & Damayanti, 2022), (Faizah, 2020), (Fragrant & Sustainable, 2020), and (Sulistiawati & Dirgantari, 2017)). Companies tend to disclose good news and withhold environmental information that adversely affects the company's image. Research conducted by (Kholmi & Nafiza, 2022) provide evidence that the company's efforts in preserving the environment can be considered very minimal, companies that have good news are willing to openly provide information to the public.

The various results of previous studies provide space to explore further the effect of green accounting on profitability, especially in the activities of mining companies. mining company, as a type of business that significantly in its activities is directly related to environmental sustainability, and directly exploits natural resources which is certainly detrimental to the environment and of course has a negative impact on life and the environment. This phenomenon leads to a goal to be studied, namely to know and analyze the effect of green accounting, which is seen from environmental performance activities and environmental disclosures, on profitability in mining companies.
RESEARCH METHODS

The population of data used is contained in the annual report published by mining companies and listed on the Indonesia Stock Exchange (IDX) during the 2017-2020 period. The sampling technique used is purposive sampling, namely the technique of determining the sample by considering: a) Mining companies listed on the IDX in 2017-2020; b) companies that publish complete financial reports and annual reports for 2017-2020; and c) the company participates in PROPER held by the ministry of environment in 2017-2020.

Table 1. Specimen Determination Procedure

<table>
<thead>
<tr>
<th>Specimen Barometer</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining companies listed on the IDX</td>
<td>47</td>
</tr>
<tr>
<td>Mining companies that are not listed consecutively on the IDX in 2017-2020</td>
<td>(6)</td>
</tr>
<tr>
<td>Companies that do not publish annual reports for 2017-2020</td>
<td>(3)</td>
</tr>
<tr>
<td>Companies that do not participate in PROPER held by the Ministry of the Environment in 2017-2020</td>
<td>(26)</td>
</tr>
<tr>
<td><strong>Total company according to barometer</strong></td>
<td><strong>12</strong></td>
</tr>
<tr>
<td><strong>Total companies according to the barometer for 4 years of observation</strong></td>
<td><strong>48</strong></td>
</tr>
</tbody>
</table>

Table 1 shows the selection of the object of this research. Based on Table 1, in this study there were 47 all mining companies listed on the Indonesia Exchange during the 2017-2019 period. There are 12 companies as a sample from the entire existing population. The sample is not taken at random and is not intended to generalize across the trading industry, but to indicate green accounting for profitability. Figure 1 shows a picture of the research flow. There are three variables in this study. Green Accounting as the independent variable, is proxied by environmental performance and environmental disclosure, while the dependent variable, namely profitability, is proxied by Return on Assets (ROA). Because there are several independent variables in this study, the researchers used multiple linear regression analysis.

Profitabilitas = β0 + β1KL + β2PL + δ ... (1)

In this study, the independent variable is green accounting, which is proxied by environmental performance and environmental disclosure variables. The dependent variable in this study is profitability which is proxied by ROA. The difference between the two independent variables lies in the assessment side. Environmental performance is related to the assessment of results that can be measured from the environmental management system related to aspects in controlling the environment, where the good or bad environmental performance of a
company can be seen from the company's achievements in participating in the Company Performance Rating Assessment Program (Sulistiawati & Dirgantari, 2017). Environmental disclosure refers more to environmental information in the company's annual report, which is a form of corporate responsibility report related to the impacts that arise (positive and negative) in running their business (Faizah, 2020)

Environmental Performance

Environmental performance is the company's performance in creating a good (green) environment. The company's environmental performance is measured by the company's achievements in participating in PROPER, which is one of the efforts made by the Ministry of Environment (KLH) to encourage corporate governance in environmental management through information instruments (Widyowati & Damayanti, 2022). The success of the PROPER program in recruiting participants is a benchmark for environmental performance. One of the Ministry of Environment's initiatives in promoting corporate governance in managing the environment by using information tools is this program. Table 3 shows the five corporate notification colors that are part of the PROPER performance alert system.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Score</th>
<th>Criteria</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>5</td>
<td>Very good</td>
<td>Those with responsibility for organizations and initiatives that regularly demonstrate environmental excellence in their services and production procedures behave in an ethical and civic manner.</td>
</tr>
<tr>
<td>Green</td>
<td>4</td>
<td>Very good</td>
<td>For businesses and processes that have exceeded the requirements of environmental governance regulations (beyond compliance) through the implementation of an environmental management system, efficient use of resources with the 4Rs (Reduce, Reuse, Recycle, and Recovery), and undertake social responsibility efforts (Corporate Social Responsibility).</td>
</tr>
<tr>
<td>Blue</td>
<td>3</td>
<td>Well</td>
<td>For companies and activities that have carried out environmental management efforts, it is necessary to adjust to the relevant laws and regulations.</td>
</tr>
<tr>
<td>Red</td>
<td>2</td>
<td>Bad</td>
<td>Efforts to manage the environment are not yet in line with statutory and regulatory standards, and administrative fines are now being applied.</td>
</tr>
<tr>
<td>Black</td>
<td>1</td>
<td>Very bad</td>
<td>For companies and activities that intentionally carry out acts or omissions that cause pollution or environmental damage, as well as violations of relevant laws and regulations or failure to apply administrative penalties.</td>
</tr>
</tbody>
</table>

Source: PROPER Report No. 5 Year 2021
Environmental Disclosure

The collection of information related to the company's past, present and future environmental management activities is a form of environmental disclosure (Tahu, 2019). Environmental information can take the form of: qualitative statements, quantitative assertions or facts, financial statements or footnotes. To measure the extent of environmental disclosure, various previous studies used a checklist based on the reference to environmental disclosure standards. A checklist of disclosure items is required to measure environmental disclosure, and these items should be compared with disclosures in the company's annual report. Using GRI G4, environmental disclosures were evaluated. 34 GRI G4 environmental reporting indicators were used in this study. The score is used in the calculation process, and will get a score of 1 if the disclosure adjusts to the GRI and a score of 0 if not. In addition, the total score for each company is calculated by adding up the scores of each component. According to research (Artamelia, Surbakti, & Julianto, 2021), the Environmental Disclosure Index, which is calculated by dividing the number of environmental disclosures carried out by companies by the number of environmental disclosure items, reveals the percentage of environmental disclosures made by companies (Artamelia et al., 2021):

\[
EDI = \frac{\text{Total Environmental Disclosure}}{\text{Total item Environmental Disclosure}}
\]

Profitability

Profitability is the capacity of a business to earn profit through the use of all available resources, including sales, cash, capital, number of staff and branches, etc. Return on Assets is the metric used in this study to determine profitability. This ratio is also useful in measuring the company's ability to obtain net profit with a certain level of assets. Below is the ROA formula:

\[
\text{ROA} = \frac{\text{Earning Before tax}}{\text{Total Asset}}
\]

To achieve the research objectives, T-test was conducted on the effect of the dependent variable with the independent variable to test the samples taken had significant differences or not.

RESULTS AND DISCUSSION

The organization places more of an emphasis on huge businesses than very profitable ones when it comes to expectations for environmental performance. Additionally, environmental disclosure is a way to fulfill the demands and expectations of stakeholders who wish to read more about the company's environmental performance in annual reports. It will affect the company's environmental disclosure if the ROA value is not in top shape.

The data in table 3 below explains the total observation data (N) amounting to 48. The environmental performance variable (X1) has a minimum value of 3.00 and a maximum value of 5.00. The environmental performance variable (X1) also has an average value of 3.77 through a standard deviation of 0.72. The next variable is the environmental disclosure
variable (X2) which has a minimum value of 0.06 owned by the Golden Energy Mines Tbk (GEMS) company from 2017 to 2020 and is also contained in the TBS Energi Utama Tbk (TOBA) company in 2017 and the maximum value 0.71 owned by Adaro Energy Tbk (ADRO) in 2020. The average value of this variable is 0.25 through the standard deviation of 0.15.

<table>
<thead>
<tr>
<th>Descriptive Statistical Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>KL</td>
</tr>
<tr>
<td>PL</td>
</tr>
<tr>
<td>ROA</td>
</tr>
</tbody>
</table>

Then the profitability variable which is proxied through return on assets (ROA) which has a minimum value of -0.08 owned by Resource Alam Indonesia Tbk (KKGI) in 2020 and a maximum value of 0.20 owned by Golden Energy Mines Tbk (GEMS) company. This variable has an average value of 0.007 through a standard deviation of 0.05.

**Multiple Linear Regression Test**

To identify the impact of environmental performance and environmental disclosure on the profitability of mining companies, the researchers used a regression test. The results of the regression test are explained through the table. Based on the data in Table 4, the equation model formed is:

\[ \text{ROA} = 0.100 - 0.005 \text{KL} - 0.142 \text{PL} + \epsilon \ldots \ (2) \]

The regression equation means that the constant value is 0.100, indicating that if the independent variable is constant 0 then the ROA (Y) value faces a decrease of 10%. However, if the value of the variable faces a decrease of 1%, then ROA faces an increase of 10%. The regression coefficient of environmental performance (KL) is -0.005, this value also shows a negative (opposite direction) effect of the ROA variable with the KL variable. This result is also assumed if the environmental performance (KL) faces an increase of 1% through the assumption that the other independent variables have unchanged values, and vice versa profitability (ROA) can face a decline of 0.5%. The regression coefficient value of environmental disclosure (PL) is -0.142, which proves the direction of the negative influence (opposite direction) of the ROA variable with the PL variable. This means that if the environmental disclosure variable (KL) increases by 1% through the assumption of the other independent variables, the value does not change, and vice versa profitability (ROA) will face a decline of 14.2%.
Does Environmental Performance in Green Accounting Affect Profitability?

Table 5. Summary of Multiple Linear Regression Results

<table>
<thead>
<tr>
<th></th>
<th>Non-Standardized Coefficient</th>
<th>Beta standardized coefficient</th>
<th>T</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.100</td>
<td>0.038</td>
<td>2,612</td>
<td>0.012</td>
</tr>
<tr>
<td>Environmental Performance</td>
<td>-0.005</td>
<td>0.010</td>
<td>-0.524</td>
<td>0.603</td>
</tr>
<tr>
<td>Environmental Disclosure</td>
<td>-0.142</td>
<td>0.047</td>
<td>-3.007</td>
<td>0.004</td>
</tr>
<tr>
<td>Level of significance (α)</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation coefficient (r)</td>
<td>0.433</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coefficient of Determination ($R^2$)</td>
<td>0.187</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.151</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Count</td>
<td>5,191</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probability (Sig. F)</td>
<td>0.0009</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Effect of Environmental Performance on Profitability

The regression results in this study show the t-count value of -0.524 with a significance value of 0.603 which is greater than a significance value of 0.05. The conditions found indicate that environmental performance has no influence on the profitability of mining companies. The results of the study show that environmental performance as proxied through PROPER (Environmental Management) cannot affect the level of company profitability. PROPER as a government policy that is used in improving the company's environmental performance in accordance with applicable laws and regulations. The existence of PROPER is expected to create an increase in the company's management of the environment.

In this study, of the 12 companies used as samples, the average company obtained a green position, which means the company has implemented environmental management beyond what is required by the regulations. However, this has not been able to increase the company's profitability. Stakeholders and the community hope that the company can carry out environmental management consistently in demonstrating environmental excellence as did the gold PROPER winners. Therefore, the environmental performance variable as proxied by PROPER has not been able to increase the level of investment and thus does not affect the level of profitability.

The company feels that evaluating environmental performance does not in fact affect the position and compensation received (Asjuwita & Agustin, 2020). Similar results were also expressed by Faizah (2020) that the demands on environmental performance made by companies are more directed at companies with large sizes, not to companies with high profitability. This study is in line with Widyowati & Damayanti (2022), (Asjuwita & Agustin, 2020), (Ningtyas & Andarsari, 2021) revealed that environmental performance is not able to affect profitability. However, this finding is not in line with the findings (Sulistiawati & Dirgantari, 2017), (Know, 2019), (Kholmi & Nafiza, 2022), (Hadriyani & Dewi, 2022), and (Suwisno & Rosdiana, 2021) which states that environmental performance has an influence on profitability. The reason is that environmental performance can be taken into consideration to see the company's financial performance because the company's positive image can increase public interest in purchasing company products which will make financial performance increase (company profits increase), increased financial performance will also increase stock prices and share values. company so that it attracts investors to invest in the company (Zulhaimi, 2015).
The Effect of Environmental Disclosure on Profitability

Environmental disclosure has a t-count value of -0.3007 with a significance value of 0.004 and less than a significance value of 0.05. This condition explains that environmental disclosure has an influence on profitability by using ROA as a proxy for mining businesses listed on the IDX. The findings of this test prove that the company's profitability decreases with increasing environmental disclosure. Environmental disclosure is a means to meet the expectations and needs of stakeholders who want to learn more about the company's environmental performance through annual reports. If the ROA value is not in prime condition, it will have an impact on the company's environmental disclosure. If the condition is unstable, the company will prioritize improving its financial stability above its environmental performance. If a company cannot properly distribute money or spends excessively on environmental initiatives, it is expected that these funds will not be used adequately, preventing them from generating large profits for the company. Significant budget allocations will result in improved environmental performance, but do not guarantee that environmental disclosure initiatives are implemented successfully and efficiently.

Disclosure of a company's environmental performance is expected to generate revenue by enhancing its reputation, thereby increasing sales and attracting investors. The results of this study are supported (Lestari et al., 2019), (Hadriyani & Dewi, 2022; AA Ningtyas & Triyanto, 2019) which environmental disclosure affects the company's profitability. This finding is different from the findings (Faizah, 2020; Sulistiawati & Dirgantari, 2017; Tahu, 2019; Fragrant & Lestari, 2020; Widyowati & Damayanti, 2022) where in his research found that environmental disclosure has no effect on company profitability. Disclosure of environmental costs in the financial statements themselves will be reviewed by stakeholders, namely: the government, creditors, investors, consumers, and employees and the public will form an opinion both positive and negative. Based on environmental activities and the disclosure of these activities in the annual financial statements, the financial statements (investors, management, and creditors) will obtain information that can assist users of the information in making decisions for company policies related to environmental conservation in the future. Come (Lalo & Hamiddin, 2021). Where these programs will be appreciated by the community, where in the end the community and consumers will have high trust in the company. This will encourage consumers to become loyal consumers of the company, where this loyalty will increase sales of products issued by the company. In other words, every action taken by the company is a reflection or form of information that can decrease and increase the value of the company (Risal, Lubis, & Argatha, 2020).

The Effect of Green Accounting on Profitability

The test results in Table 4 show that green accounting which is proxied by environmental performance and environmental disclosure together has an influence on the profitability of mining companies. These results are seen from the significant F value of 5.191 with a probability level (sig.F) of 0.0009. This shows the calculated probability is smaller than the level of significance. The value of the coefficient of determination (R²) is 0.433 with Adjusted R² of 0.151. This gives an understanding that 15.1% of mining company profitability can be explained by green accounting, while the remaining 84.9% mining company profitability is influenced by other variables not examined in this study. This shows that environmental performance and environmental disclosure are not determinants of the profitability of mining companies (Sulistiawati & Dirgantari, 2017).
By implementing green accounting, companies will get more value from the public or investors who want to invest their capital in the company. Companies should improve environmental management by planning and executing well in terms of waste management and the environment around the mine. The existence of good environmental management indicates that the company's management is working well and the company has carried out its responsibilities to the environment and society. This can affect the level of company profitability through investment. Investors and creditors tend to choose companies that have implemented good environmental management procedures to invest their capital.

**CONCLUSION**

The results of this study indicate that environmental performance does not affect the level of profitability of mining companies. Meanwhile, environmental disclosure has an influence on the profitability of mining companies. Good environmental management in accordance with applicable regulations must be carried out by every company, including mining companies. Mining companies that have close links with environmental damage receive special attention from the public and investors. This makes mining companies required to carry out environmental management properly. Recommendations for companies, it is advisable to pay attention to environmental factors in the policy of determining environmental disclosure in the company's financial statements, because in this study the company's environmental disclosure has a significant influence on the profitability of mining companies, although there are many other factors that determine.

The sample companies in this study are limited to mining companies. Environmental performance assessment is only through PROPER and is limited to 2013-2015. In this study, only two independent variables were examined, namely environmental performance and environmental disclosure. Future research is expected to increase the number of samples and extend the observation period so that the number of research samples is also greater. This can improve the distribution of better data, further researchers can also complete environmental performance indicators not only using the PROPER assessment results but also using ISO 140001. Further research can add research variables such as environmentally friendly products, environmental costs and environmental activities.

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