Effect of Financial Performance, Company Size, and Share Ownership on Environmental Performance in Mining Companies on the Indonesia Stock Exchange

Anditto Farlinno, Yustrida Bernawati

1 Accounting Department, Faculty of Economics and Business, Airlangga University, Jl. Airlangga no. 4, Surabaya, East Java, Indonesia

ABSTRACT: This study aims to determine the effect of financial performance, company size, and share ownership on environmental performance based on the Environmental Performance Assessment Program in Environmental Management (PROPER) on mining companies listed on the Indonesia Stock Exchange (BEI) in 2012 to 2016. This study uses a quantitative method. The population in this study were 41 mining sector companies listed on the Stock Exchange and the number of samples in this study was 36 selected using the purposive sampling method. The hypothesis in this study was tested using multiple linear regression. The results of this study indicate that profitability and company size has a significant influence on PROPER-based environmental performance, while liquidity and stock ownership do not significantly influence PROPER-based environmental performance.

Keywords: Financial performance, profitability, liquidity, company size, share ownership, environmental performance

INTRODUCTION

The problems in the mining sector seem to never run out, on May 8, 2017, the Regional Executive Director of the Bengkulu Forum for the Environment, Beni Ardiansyah said he would sue the local government through legal channels related to the Bengkulu watershed pollution case due to coal waste because the local government did not try to find companies that responsible for this environmental damage. There are additional indications such as ex-reclaimed mining pits, damage to forest areas, obligation to pay reclamation guarantees and post-mining guarantees that are not fulfilled, and issues of permits indicated to enter conservation and protected forest areas as revealed in the Directorate General of Palonology Ministry of Forestry's letter No. S.706 / VII-PKH / 2014 dated July 10, 2014, has not been followed up either. The source of the problems that occurred in Bengkulu is caused by mining companies that over-exploit the environment (Hendry, 2018). Profit should not be a reason for companies to exploit the environment excessively, companies must also pay attention and preserve the environment (Hendry, 2018).

Companies may focus on financial performance, but may not override environmental performance. According to Earnhart & Lizal (2006), the more successful a company's financial performance is, the environmental performance will also increase. As the times evolved, there was a paradigm shift with the birth of a concept in 1988 which was introduced by John Elkington, called the Triple Bottom Line. Triple Bottom Line is also known as 3P namely People, Planet and Profit. These three points are the basis for measuring the value of a company's success on three criteria: economic, environmental, and social. According to Suratno (2007), environmental performance is the company's effort in creating a green environment. In other words, environmental performance is the performance of companies that aim to preserve the environment.

In 1995, the Ministry of Environment developed a Company Performance Rating Assessment Program in Environmental Management or better known as PROPER, which aims to increase awareness of companies in Indonesia to preserve their environment, with a rating the company will get a value or reputation in accordance with the environment that it manages. By conducting an analysis of financial
performance, company size, and stock ownership on proper environmental-based environmental performance, it is expected to know the effect of the variables raised on management decision making related to the environmental performance of mining sector companies. The formulation of the problem of this research is: Does the financial performance, company size, and share ownership affect the environmental performance of mining companies listed on the Indonesia Stock Exchange?

LITERATURE REVIEW

Legitimacy Theory
Legitimacy is considered important for the company because the legitimacy of the community to the company can have a positive impact and encourage the development of the company in the future. O'Donovan (2002) states that the theory of legitimacy as an idea so that organizations or companies can continue to operate successfully, companies must act in ways that are socially acceptable to society. Legitimacy can be obtained if there is a match between the company's performance with the values that exist in society and the environment. If there is a difference between company performance and community expectations, then a legitimacy gap will occur which can endanger the company’s survival.

Stakeholder Theory
Stakeholder theory arises because of the awareness and understanding of management that the company has stakeholders, including the community, community, and even individuals who have an interesting relationship with an organization or company. Stakeholders have the right to obtain information about company performance that can influence decision making. The main purpose of stakeholder theory is to help the company or organization's management understand their stakeholder environment and manage the company’s activities more effectively and efficiently.

Effects of Financial Performance on Environmental Performance
Financial performance is the result of work within a company that can be seen in the company's financial statements for a certain period. One way to assess a company's financial performance is by looking at its profitability. Profitability is the company's ability to generate profits. High profit will give the company flexibility over the use of funds for the environment. There are several ratios to measure profitability, including gross profit margin, net profit margin, return on assets, and return on equity. Companies with a high level of profitability certainly have more funds, so the company tends to improve its environmental performance. Research conducted by Wicaksono (2012) and Widyatmoko (2011) found the effect of profitability on environmental performance.

H1: Profitability affects Environmental Performance

Financial performance can also be assessed based on liquidity. Greater current assets compared to smaller current debts can produce high levels of liquidity. Companies with a high level of liquidity tend to be efficient in using working capital, this also illustrates the healthy financial condition of the company. With good financial conditions, the company will further improve its environmental performance compared to companies that have low liquidity. Research conducted by Wicaksono (2012) and Widianingsih (2011) shows that liquidity influences environmental performance.

H2: Liquidity affects Environmental Performance

Effect of Company size on Environmental Performance
Company size is basically an indicator or benchmark used to determine the size or size of a company. The size of the company can be seen from the total assets owned by the company. If the company has large total assets, the management will be freer to use it to support the activities carried out by the company. Research conducted by Wicaksono (2012) and Sari and Ulupui (2014) found a significant effect on environmental performance. This opinion was also strengthened by the results of Widyatmoko's (2011) research which found that company size had a significant effect on environmental performance.

H3: Company Size affects Environmental Performance
Effects of Stock Ownership on Environmental Performance
Public ownership of shares is a portion or part of company ownership owned by the general public. Companies that are publicly owned tend to be more open in delivering financial and non-financial performance and information. This is because, the greater the portion owned by the public, the more eyes that highlight the company’s activities. Research conducted by Wicaksono (2012) and Sihombing and Chariri (2011) shows that public ownership of shares influences environmental performance.

H4: Stock Ownership affects Environmental Performance

RESEARCH METHODS

Data Collection Procedure
Documentation techniques to collect data in this study are used to gather information such as company financial statements and PROPER results. The data needed in this study is an annual financial report that has been published by the Indonesia Stock Exchange (IDX) or the official website of each company studied and the PROPER results released by the Ministry of Environment. A literature study in this study can be interpreted as a data collection technique by conducting a review of various books, literature, previous studies and various reports as a basis for determining the title of the study.

Population and Sample
In this study, the population is a mining sector company registered in the Indonesia Stock Exchange (IDX). Not all of the population will be studied. The study used a purposive sampling technique. With the following sample criteria:
- Companies participating in the 2012-2016 Company Performance Rating Program (PROPER).
- Companies that have complete financial data and information.

Table 1. Research Object Overview

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of mining sector companies participating in proper</td>
<td>8</td>
<td>9</td>
<td>8</td>
<td>8</td>
<td>6</td>
<td>39</td>
</tr>
<tr>
<td>The number of mining sector companies participating in proper but incomplete data</td>
<td>(1)</td>
<td>(1)</td>
<td>(0)</td>
<td>(1)</td>
<td>(0)</td>
<td>(3)</td>
</tr>
<tr>
<td>The number of mining sector companies participating in proper with complete data</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>36</td>
</tr>
</tbody>
</table>

Source: Data processed (2018)

Operational Variable Definition and Measurement
Referring to the existing problems in this study, the variables to be used are the dependent variable (Y) and the independent variable (X).
1) Dependent Variable (Y)
The dependent variable in this study is the PROPER-based environmental performance for the 2012-2016 period
2) Independent Variable (X)
The independent variables that will be tested in this study are the company’s financial performance measured by using financial statement ratio analysis, the size of the company measured by total assets, and share ownership measured by the portion of share ownership owned by the public.

Profitability measured by Return on Assets (X1)
\[ X1 = \text{ROA} \]
Asset Returns are used to measure a company’s ability to generate profits.
ROA = \frac{Net \ Income}{Total \ Assets}

Liquidity measured by Current Ratio (X2)

\[ X2 = CR \]

CR shows the company's ability to overcome short-term liabilities with current assets.

\[ CR = \frac{Current \ Asset}{Current \ Liability} \]

Company size measured by Lognatural total assets (X3)

\[ X3 = LN_{-}TA \]

Lognatural total assets are used to measure company size based on total assets.

Company Size = Ln. Total Asset

Ownership Share measured by% of total public shares (X4)

\[ X4 = KS \]

Ownership share is used to measure the percentage of public share ownership.

\[ Ownership \ Share = \frac{Total public \ share \times 100%}{Total \ Share} \]

Model Analysis

Multiple linear regression tests using SPSS were conducted to determine the effect of profitability, liquidity, company size, and public ownership of shares on environmental performance. This is done to determine the effect and relationship between independent variables (independent) to the dependent variable (bound) with the following formula:

\[ Y = \alpha + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + e \]

Information:

- \( Y \) = Environmental Performance
- \( \alpha \) = Constant
- \( x_1 \) = Profitability Variable
- \( x_2 \) = Liquidity Variable
- \( x_3 \) = Company Size Variable
- \( x_4 \) = Variable of Share Ownership by the Public
- \( e \) = error

RESULTS AND DISCUSSION

Results

The development of the mining industry has always been the mainstay of this because the mining sector is one of the pillars of economic development in Indonesia. The series of activities ranging from prospecting, exploration, exploitation, and processing causes the mining industry to become a capital-intensive industry and different from other industries. The mining industry is often accused of being a dirty industry that sacrifices environmental sustainability. So far there are 365 mining companies in Indonesia, out of 41 listed companies can be categorized according to the mining sub-sector, including 22 coal mining sub-sector companies, 7 oil and gas mining sub-sector companies, 10 metal and mineral mining sub-sectors, and 2 companies in the rock mining sub-sector.

This study aims to test and empirically prove the influence of independent variables on the dependent variable that has been determined by the author. The subjects in this study were mining sector companies listed on the Indonesia Stock Exchange (IDX) and registered as participants in the Company Performance Rating Assessment Program in Environmental Management (PROPER) from 2012 to 2016.
Effect of Financial Performance, Company Size, and Share Ownership on Environmental Performance in Mining Companies on the Indonesia Stock Exchange
Anditto Farlinno, Yustrida Bernawati

**Descriptive Statistics**

Descriptive statistics provide an overview and information about the variables used in this study, among others, financial performance (profitability and liquidity), company size, and share ownership. Descriptive statistics provide information regarding the minimum, maximum, average, and standard deviation values for each variable. Descriptive statistics in this study are presented in Table 1.

Based on Table 2 and Table 3 of the 36 companies studied, 8 companies received a gold rating with a score of 5, 10 companies received a green rating with a score of 4, and 18 companies received a blue rating with a score of 3. There were no companies that received a red and black rating. In accordance with the results of descriptive statistics in Table 4.2, the environmental performance variable has a minimum value of 3.00 and a maximum value of 5.00.

**Table 2. Descriptive statistics**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>36</td>
<td>.09</td>
<td>.29</td>
<td>.0447</td>
<td>.08130</td>
</tr>
<tr>
<td>CR</td>
<td>36</td>
<td>.29</td>
<td>8.85</td>
<td>2.2454</td>
<td>1.54220</td>
</tr>
<tr>
<td>LN_TA</td>
<td>36</td>
<td>28.46</td>
<td>32.11</td>
<td>30.5451</td>
<td>1.78202</td>
</tr>
<tr>
<td>KS</td>
<td>36</td>
<td>.18</td>
<td>.40</td>
<td>.3289</td>
<td>.06115</td>
</tr>
<tr>
<td>Environmental Performance</td>
<td>36</td>
<td>3.00</td>
<td>5.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data processed (2018)

**Table 3. Environmental Performance**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Score</th>
<th>Number of Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Green</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Blue</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>Red</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Black</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>36</td>
</tr>
</tbody>
</table>

Source: Data processed (2018)

This study also uses a proxy current ratio which is one of the liquidity ratios as indicators to measure financial performance. Based on Table 3, the liquidity variable has a minimum value of 0.29 and a maximum value of 8.85. The minimum value for the liquidity variable was owned by PT J Resources Asia Pasifik Tbk in 2015, while the maximum value for the liquidity variable was owned by PT Vale Indonesia Tbk in 2016. The average value of the liquidity variable was 2.2454 and the standard deviation value means the distance of individual data points from an average value of 1.54220.

The company size variable has a minimum value of 28.46 and a maximum value of 32.11. The minimum value for the company size variable was owned by PT Vale Indonesia Tbk in 2012, while the maximum value for the company size variable was owned by PT Adaro Energy Tbk in 2016. The average value of the company size variable was 30.5451 and the standard deviation value that had meaning, the distance of individual data points from the average value of 0.78202.

Ownership Share variables are measured using a proxy for public ownership of shares. Variable share ownership has a minimum value of 0.18 and a maximum value of 0.40. The minimum value for the share ownership variable was owned by PT Medco Energi Internasional Tbk in 2014, while the maximum value for the share ownership variable was owned by PT Adaro Energy Tbk in 2016. The average value of the share ownership variable was 3.7222 and the standard deviation value has the meaning, the distance of individual points from an average value of 0.81455.

**Multiple Linear Regression Analysis**

Multiple regression analysis is used to determine how much influence the independent variable has on the dependent variable. Regression analysis results in the form of coefficients for each independent variable. This coefficient is obtained by predicting the value of the dependent variable with an equation. In this study,
the dependent variable used is environmental performance, while the independent variables used are financial performance, company size, and share ownership. The financial performance variable uses a proxy return on assets (ROA) which is one of the profitability ratios and a proxy current ratio which is one of the liquidity ratios. The results of multiple linear regression analysis are presented in Table 4 with the help of SPSS for Windows release 20.0.

### Table 4. Results of Multiple Linear Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-13.921</td>
<td>5.768</td>
<td>2.414</td>
<td>.023</td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>4.145</td>
<td>1.953</td>
<td>.366</td>
<td>2.123</td>
<td>.043</td>
</tr>
<tr>
<td>CR</td>
<td>-.099</td>
<td>.087</td>
<td>-.189</td>
<td>-1.142</td>
<td>.263</td>
</tr>
<tr>
<td>LN TA</td>
<td>.624</td>
<td>.191</td>
<td>.547</td>
<td>3.259</td>
<td>.003</td>
</tr>
<tr>
<td>KS</td>
<td>-3.878</td>
<td>2.279</td>
<td>-.278</td>
<td>-1.702</td>
<td>.100</td>
</tr>
</tbody>
</table>

Source: Data processed (2018)

### Hypothesis test

The statistical test t is carried out to test the effect of the independent variables on the dependent variable individually. This can be seen from the significant value of t generated from the calculation. If the significant value of t < significant level (0.05) then the independent variable individually influences the dependent variable, conversely if the significant value of t > the significant level (0.05) then the independent variable individually does not affect the dependent variable. Significant t test results can be seen in Table 4.

### Discussion

**Effects of Financial Performance on Environmental Performance**

Based on the statistical results in table 4, profitability has a significant effect on environmental performance based on PROPER in mining sector companies listed on the Indonesia Stock Exchange (IDX). The higher the profits generated by the company, the higher the company's ability to improve and improve its environmental performance, because good environmental performance can make the company's image better in the eyes of shareholders, investors, and the public. This study supports previous research conducted by Wicaksono (2012) and Widyatmoko (2011), that profitability has a significant effect on environmental performance based on PROPER, but does not support research conducted by Widarsono and Hadiyanti (2015) which states that profitability has no significant effect on environmental performance.

**Effects of Liquidity on Environmental Performance**

Based on the statistical results above liquidity has no significant effect on environmental performance based on PROPER in mining sector companies listed on the Indonesia Stock Exchange (IDX). The smaller current assets and the greater the current liabilities of a company will indicate weaknesses in paying off current liabilities. This proves that the high or low level of liquidity of a company does not affect the company in making decisions on its environmental performance, because based on descriptive statistics the sample of the company shows good liquidity results. This study supports research conducted by Widarsono and Hadiyanti (2015) and Widianingsih (2011) that liquidity has no significant effect on PROPER-based environmental performance, while the results of this study are different from research conducted by Wicaksono (2012) which states that liquidity has a significant effect on environmental performance.

**Effects of Company Size on Environmental Performance**

Based on the statistical results above, company size has a significant effect on environmental performance based on PROPER in mining sector companies listed on the Indonesia Stock Exchange (IDX). Companies with large total assets will pay more attention and improve their environmental performance compared to companies with small total assets because companies with large size can reflect that the company has
reached establishment. On the other hand, large companies tend to get more attention and demands from the community to preserve the environment in which the company operates. This study is in line with those conducted by Wicaksono (2012) Sari and Ulupui (2014), and Widyatmoko (2011) who stated that company size has a significant effect on PROPER-based environmental performance.

*Effects of Stock (Share) Ownership on Environmental Performance*

In this study, share ownership is measured through public ownership of shares. Based on the statistical results above, share ownership has no significant effect on environmental performance based on PROPER in mining sector companies listed on the Indonesia Stock Exchange (IDX). This can also be caused by the minimum concern of shareholders for environmental sustainability. Shareholders, in general, will prioritize the company’s financial performance because shareholders certainly demand the management of the company to produce high profits so that when dividends are distributed, shareholders will get high earnings per share as well. This study supports research conducted by Sihibong and Chariri (2014) that share ownership does not significantly influence PROPER-based environmental performance, as well as research conducted by Widarsono and Hadiyanti (2015) which found that public ownership of shares does not affect the environmental performance of a company that is proxied with social disclosure. While the results of this study differ from research conducted by Wicaksono (2012) which states that public ownership of shares has a significant effect on environmental performance. While the results of this study do not support previous research conducted by Sihibong and Chariri (2014) which states that public ownership of shares does not significantly influence environmental performance.

**CONCLUSION**

Financial performance with profitability indicators can affect environmental performance based on the Company Performance Rating Rating Program in Environmental Management (PROPER). This is due to the company's ability to generate profits, making the company have excess funds so that it can be allocated to improve its environmental performance.

Financial performance with liquidity indicators does not affect environmental performance based on the Company Performance Rating Rating Program in Environmental Management (PROPER). Companies with a low level of liquidity tend to override their environmental performance because it has become the essence of a company to focus on improving and improving financial performance in the mining business which is volatile. This research proves that liquidity is not considered in making environmental performance decisions.

Company size based on total assets affects environmental performance based on the Company Performance Rating Rating Program in Environmental Management (PROPER). The greater the size of the company, the greater the impact on the environment, therefore a company with large size will also improve its environmental performance.

Share ownership in terms of public ownership does not affect environmental performance based on the Company Performance Rating Rating Program in Environmental Management (PROPER). This can be caused by the low level of concern for environmental performance by public shareholders because there are still many shareholders who prioritize improving the company's financial performance so that when dividend distribution, shareholders can obtain greater returns.

**REFERENCES**


Efandiana, Ludita. (2010). *Analisis Faktor-Faktor yang Berpengaruh terhadap Kinerja Intellectual Capital pada Perusahaan Manufaktur yang terdaftar di BEI.*


Handayani, Ari Retno. (2010). *Pengaruh Environmental Performance terhadap Environmental Disclosure dan Hard Environmental Disclosure Perusahaan (Studi Empiris Pada Perusahaan Non-Keuangan yang Terdaftar di Bursa Efek Indonesia).*


