Environmental performance, voluntary disclosure, and corporate value

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Abstract. This study aims to investigate the effect of environmental performance on corporate value through voluntary disclosure. This study tests all mining companies listed in Indonesia Stock Exchange during 2011-2015. The data analysis method used in this research is path analysis. This study shows the direct influence of environmental performance on company value, and also on voluntary disclosure. However, the indirect influence shows that voluntary disclosure is unable to mediate the relationship between environmental performance and company value.

1. Introduction

Research on firm value is still interesting. The maximizing of company value is the desire of most company stakeholders as stated in theory of the firm [1]. The value of firm is defined as the company's prospects perceived by investors as reflected in the stock performance [2]. Investor perception and effective management are among important factors may influence the firm success. Investors are interested in information about the value of the company because it relates to their level of welfare.

In the globalization era, the mining industry is increasingly showing its existence in the stock market; hence this study focuses mainly on this sector. Government is in the condition of instability of mining stocks return that may caused by the global financial crisis in Asia during 2011-2014 [3]. All mining companies includes high profile industry face several problems, among others, the accumulation of production, low stock prices and low firm value. Firm value may be influenced by the company's own image such as the environmental performance. This research uses PROPER measure to describe the company's environmental performance.

Companies that show the concern and are involved in the activities of the surrounding environment, especially for companies that get rewards from the government or recognition from the community such as PROPER, generally get attention and interest from investors. Besides, firms that pay attention to their environmental management may achieve added value of the company and hence it will bring a positive impact on the company [4]. Past study noted the relationship between environmental plan and corporate value [5]. The firm's achievement in creating a green environment is measured by PROPER released by Ministry of Environment to improve the firm performance in
environmental conservation. Since 2002, government has applied the PROPER to control the environmental problems to increase the management’s responsibility in environmental management activities.

By referring to the PROPER data conducted by the Ministry of Environment, there are several companies have the green rank, gold rank, and black rank [3]. The description portrays some of the companies’ operational activities are still not environmentally friendly so it may bring the environmental problems in Indonesia. Thus, the companies need to disclose their contribution to the various social problems. This research seeks to investigate the effect of environmental performance on firm’s value indirectly through voluntary disclosure.

1.1. Company value
The value of a company is a certain state as a portrait of public opinion of firm prospect in the future [2]. Investors perceive that the information of company's value is important since the data is very relevant to the level of their expected welfare [2]. Investor reaction to the news about the company’s prospects is reflected in the increase in stock prices. Thus, the substance of the company which is an illustration of the level of firm success and performance is in line with the interests of the company owner.

1.2. Voluntary disclosure
Voluntary disclosure illustrates that a firm discloses some information such as financial and non-monetary explanation that are not required by regulation [6]. Voluntary disclosure is a condition of information in particular related to firm activities and public image in relation to non financial issues. Voluntary disclosure may convey the positive information about the company's activities with external parties, such as student scholarship or waste management policies. However, on the contrary, firm operational activities that damage the environment and increase pollution may bring the bad image of the firm [7].

1.3. Environmental performance
Environmental performance is firm activities in helping to safe a healthy environment or green environment. The current literature shows that many researchers use PROPER to evaluate the environmental performance [8]. The information of PROPER can be accessed by public regularly. It means that the PROPER value obtained by a company may reflect the company's reputation in the eyes of the community depending on the level of its compliance. The PROPER Award aims to encourage companies to achieve the environmental activities such as implementation of ethical and responsible business to the community through community development programs [8].

1.4. Theoretical framework
There are several theories used in this study such as agency theory, stakeholder theory and signalling theory. First, agency theory describes agency relations as a contract between one or more principals and agents to perform some services for principles by involving the delegation of decision-making authority to agents [1]. Both the principal and the agent are assumed to be rational economic people and solely motivated personal gain; this will lead to agency conflict. The second theory, stakeholder theory explains that management is not only responsible to the owner but also to other stakeholders. Stakeholders are all internal and external parties that may influence companies either directly or indirectly. Firm management should pay attention to its stakeholders to increase the value of the company. Therefore, social disclosure is regarded as a medium of communication between companies and their stakeholders [8-9].

Third, signalling theory explain the action taken by corporate management that gives investors sign about how management views the firm prospects [2]. The signalling theory assumes that firm insider possesses the complete and accurate description regarding the firms’ prospect that is unknown to stakeholders. Management who have comprehensive analysis about the business may be confident to
express the exclusive information to potential investors \cite{7}. Firm management may increase the firm value by sending a signal through its annual report. Thus, environmental performance is expected to influence the firm policy maker through the disclosure of non financial reporting. Signalling theory explains that companies should convey the firm complete information as a signal to outside parties to increase transparency and corporate value. Companies need to disclose the financial and non-financial information as required or voluntarily \cite{9}. Stakeholder’s theory argues that firm should participate in non financial disclosure as a responsibility to stakeholders. The theoretical framework of this study described briefly in Figure 1.4.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure1.png}
\caption{The Relationship between Environmental Performance [EP] and Corporate Value [CV] through Voluntary Disclosure}
\end{figure}

This study proposes 3 hypotheses based on several theories and researches support as follows:

H1. Environmental performance affects voluntary disclosure
H2. Environmental performance affects corporate value.
H3. Environmental performance affects corporate value through voluntary disclosure.

2. Research methodology

The study population is all listed mining companies in Indonesia Stock Exchange in the period of 2011-2015 with comprehensive data of financial report. The sample of this study is 40 companies. Next, the explanation of each variable operationalization is discussed in detail.

2.1 Dependent variable

Company value is the dependent variable in this research model. This study uses the proxy Price to Book Value (PBV) to measure corporate value. PBV is one of the market ratios used to measure stock market value to book value. The higher this ratio means the market believes in the firm prospect. The formula for calculating price book value\cite{2} is shown below:

\[
\text{Price Book Value} = \frac{\text{Market Value}}{\text{Book Value}} \times 100\%
\]  

2.2 Intervening variable

Voluntary disclosure is described as an explanation other than finance in the form of numerical or non-numerical data such as information about the firms’ environment and social activities. This study uses the Global Reporting Initiative [GRI] measure. GRI standard consists of 79 indicators of voluntary disclosure. This measurement is described in the ratio of actual corporate disclosure with the maximum number of their disclosure should be reported.

2.3 Independent variable.

The company’s environmental performance is the company’s success in creating uncontaminated surroundings. Environmental performance was measured by using the value of PROPER rating includes rating the company in 5 (five) categories which are sorted from highest to lowest: such as gold, green, blue, red, and black.
2.4 Research model
This study employs a multiple regression model for the relationship between environmental performance, voluntary disclosure, and company value. Data of firm success in creating good environment is found from the authorized website of the Indonesian Ministry of Environment. This study obtains data of voluntary disclosure and corporate value from the annual report of firms listed in Indonesia Stock Exchange.

3. Results

3.1. Environmental performance and voluntary disclosure
This study tests the first hypothesis. The result of the regression analysis in the Table 3.1 shows the coefficient of the variable PROPER at mining company equal to 1.326. The t value is 2.233 and p-value is 0.027, then H1 is accepted. It means that the environmental performance influence firm voluntary disclosure.

| Model | Unstandardized Coefficients | Standardized Coefficients |
|-------|-----------------------------|---------------------------|
|       | B                           | Std. Error                | Beta          | t     | Sig.  |
| 1     | (Constant)                  | 19.838                    | 2.124         | 9.339 | 0.000 |
| EP    | 1.326                       | 0.594                     | 0.157         | 2.233 | 0.027 |

Dependent Variable: voluntary disclosure

3.2. Environmental performance and company value
Table 3.2 shows the result of the regression analysis that is the coefficient of EP variable is equal to 0.418. The t value is 1.605 and p-value is 0.110. Based on the result, H2 is rejected, that the environmental performance does not affect on a company value.

| Model | Unstandardized Coefficients | Standardized Coefficients |
|-------|-----------------------------|---------------------------|
|       | B                           | Std. Error                | Beta          | t     | Sig.  |
| 1     | (Constant)                  | 0.491                     | 0.932         | 0.526 | 0.599 |
| EP    | 0.418                       | 0.261                     | 0.113         | 1.605 | 0.110 |

Dependent variable: company value

3.3. Environmental performance and company value through voluntary disclosure
Table 3.3 shows that a result of the direct effect of EP on company value is 1.326. The indirect effect of EP on firm value through voluntary disclosure is based on this calculation: 0.418 x 0.912 = 0.381. Then, the total effect is 0.944 + 0.381 = 1.325. This study shows that the value of direct effect is 0.944 and indirect influence is 0.381. It can be interpreted that the direct influence is greater than the indirect influence, and then this study shows that voluntary disclosure cannot mediate the relationship between environmental performance and company value.
Table 3. Environmental performance and company value through voluntary disclosure

| Model | Unstandardized Coefficients | Standardized Coefficients |
|-------|----------------------------|---------------------------|
|       | Std. Error | Beta | T | Sig. |
| 1     | (Constant) | 19.391 | 1.953 | 9.929 | 0.000 |
| EP    | 0.944     | 0.549 | 0.112 | 1.720 | 0.087 |
| CV    | 0.912     | 0.149 | 0.398 | 6.131 | 0.000 |

Dependent Variable: voluntary disclosure

4. Conclusion
The findings of this study lead to the following conclusion:
1. Environmental performance affects the information of social and environment that disclosed voluntarily in mining companies listed in Indonesia Stock Exchange.
2. However, the firms’ effort in environmental success does not enhance the company’s value.
3. Voluntary disclosure does not influence the indirect relationship between environmental performance and company value.

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