ATLANTIS PRESS
Advances in Economics, Business and Management Research, volume 115
17th International Symposium on Management (INSYMA 2020)

Factors Influencing Carbon Emission Disclosure in Mining Companies of Indonesia

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ABSTRACT: The research aims to analyze the influence of Proper rank, company size, profitability, leverage, and media exposure on Carbon Emission Disclosure of mining companies in Indonesia. The Carbon Emission Disclosure measurement used a checklist from Choi et al. (2013) research, which was developed from the Carbon Disclosure Project information request sheet. The population of this research was mining companies listed on the Indonesia Stock Exchange in 2016-2017, and it used a purposive sampling method based on specific criteria. The classical assumption was used for data analysis and regression analysis for hypothesis testing. The results of this research showed that the Proper rank, company size, profitability, and leverage had no significant influence on the Carbon Emission Disclosure. Meanwhile, media exposure had a significant influence on Carbon Emission Disclosure.

Keywords: mining companies, carbon emission disclosure, media exposure

1 INTRODUCTION

The existence of industry can cause excessive exploitation of nature and affects the declining environmental quality. The quality of the environment declined because of the increase of carbon gas emissions, so that it needs greenhouse gas emission reduction in response to global warming issues.

Indonesia is committed to reducing greenhouse gas emissions by ratifying the Kyoto protocol on December 3, 2004, through Law 17/2004. The Republic of Indonesia President issued the Presidential Regulation No. 61 of 2011 about the National Action Plan for reducing Greenhouse Gas emissions (RAN-G RK). The implication is to bring out carbon accounting, which is a must for companies to conduct recognition, measurement, recording, presentation, and carbon emission disclosures. It is related to the efficiency of carbon emissions on the use of raw materials, labor costs, factory overhead costs, environmental overhead costs, and associated costs with standard carbon management. Meanwhile, the practice of carbon emissions disclosure in Indonesia is still voluntary disclosure.

Choi et al. (2013) examined some factors that influence carbon emission disclosure by using variables of company size, profitability, carbon emissions, industrial type, and quality of corporate governance. Based on the research, there is further testing on the factors that influence the carbon emission disclosures of mining companies in Indonesia. The coal company is the most substantial part and contributes to the emissions of oil, gas, and coal in large quantities. Efforts to reduce the greenhouse gas emissions undertaken by business actors can be demonstrated through the carbon Emission disclosure.

This research aims to test the factors that influence the carbon emission disclosure of mining companies in Indonesia. The test includes PROPER rating, company size, profitability, leverage, and media exposure, which are based on the theory of stakeholders and the theory of legitimacy.

The theory of stakeholders relates to various social activities that will provide various benefits and a good impact on the company in maintaining the company's sustainability. The theory of legitimacy focuses on the relationship between the company and the community through regulations made by the Government.

The legitimacy will be obtained by the company if there is a similarity in terms of the expected results in the company and society. So, it will reduce the long-term risk of community demands (Deegan et al. 2002). When there is a difference between the company and the community related to the value adopted in the "legitimacy gap ", it will influence the ability of the company to continue its business activities. The worst risk of society will revoke its social contract when they feel dissatisfied with the company's activities.

The PROPER rate indicates that the company has a consistent level of care and responsibility for environmental management. This means that companies with a high PROPER rating influence the carbon emissions disclosure, so that companies are consistently responsible for paying attention to environmental conditions. This indicates that the company has responsibility for the greenhouse gas emissions reduction that is being encouraged by the country. The company has to prove that the primary goal of the company is not only about earning a profit. This is in line with the research result by Pradini (2013), who stated that PROPER rating has a significant impact on carbon emissions disclosure. Based on the above explanation, the hypothesis in this study is:

H1: PROPER rating gives a positive influence on carbon emission disclosure.

Company size is a variable that is often used in previous research to explain the carbon emissions disclosure (CO2). Large companies will usually get more attention from the public and lead to the information on carbon emissions disclosure generated with higher levels of liability. Based on the theory of legitimacy, the company's large activities will be more noticeable compared to smaller companies. Therefore, the demands and pressures of the community will be greater. It is in line with the research of Jannah & Muid (2014), Majid & Ghozali (2015), and Hermawan (2018) that stated company size influences the carbon emission disclosure. Based on the above description, the hypothesis can be formulated as follows:

H2: Company size has a positive influence on carbon emission disclosure.

Profitability suggests that companies with the right financial conditions are more likely to disclose information about carbon emissions. Companies with the right financial conditions can pay for the additional human or financial resources needed for better reporting and disclosure of carbon emissions in order to withstand the external pressures. Companies with the right financial conditions are more comfortable to answer these pressures because the company has more resources that can be used to conduct environmental disclosure than companies with low profitability (Zhang et al. 2012). In contrast, companies with poor financial performance only focus on achieving better financial objectives and improved performance so that their tendency to preventing and reporting carbon emissions is low. This is in line with research by Jannah & Muid (2014) that stated that profitability influences Carbon Emission Disclosure.

Based on the above explanation, the hypothesis can be formulated as follows:

H3: Profitability has a positive influence on carbon emission disclosure.

Companies with high leverage tend to be doing Carbon Emission Disclosure as a form of responsibility to the environment. So that the effort is able to attract investors to invest in the company. As a result, the pressure given by creditors and investors to the company with high leverage is lower.

This is in line with the research of Lorenzo et al. (2009) stated that a company with a high level of leverage would conduct many information disclosures, including disclosures regarding greenhouse gas emissions. It is because companies can lower the agency cost and can respond to the conflicts between shareholders with creditors. Based on the above description, the hypothesis is as follows:

H4: Leverage has a positive influence on carbon emission disclosure.

In general, mining companies are companies that get community attention because of its potential operating activities against natural damage. When associated with the theory of legitimacy, mining companies tend to disclose their environmental performance better in order to legitimize their operations and lower the pressures of social and environmental activists (Sari 2012). In Indonesia, the mining company is an industry with a higher level of sensitivity when compared to other industries, such as the food and beverage industry, cosmetics, energy, chemical, and pharmaceutical industry (Prasetianti 2014).

Legitimacy theory examines the role played by media news at the increased pressures caused by public demands toward the company. Media plays an essential role in the social mobilization movement, such as a group of people who are interested in the environment (Nur & Priantinah, 2012). In conclusion, companies that get more attention from online media as external parties will conduct greenhouse gas emissions disclosure. It is strengthened by the research result of Jannah (2014) that stated media is positively influential towards the carbon emission disclosure.

From the explanation above, the hypothesis is as follows:

H5: Media Exposure has a positive influence on carbon emission disclosure.

2 RESEARCH METHODS

This analysis is used to find out how significant the influence of independent variables towards dependent variables. The equation of multiple linear regressions is as follows (Ghozali, 2013):

$$Y = \alpha + \beta X_1 + \beta X_2 + \beta X_3 + \beta X_4 + \beta X_5 + e \quad (1)$$

Y : Dependent variable (*Carbon Emission Disclosure*)
α : Constanta
β : Regression Coefficient
X_1 : PROPER rating
X_2 : Company size
X_3 : Profitability
X_4 : Leverage
X_5 : Media Exposure
e : error

The population in this research was mining companies listed on the Indonesia Stock Exchange and have a rating of the company's performance in environmental management (PROPER) year 2016- 2017 with the following criteria:

1. Listed on the Indonesia Stock Exchange.
2. Published financial and annual reports over the 2016-2017 period.
3. Issued at least one carbon emissions disclosure policy.

3 RESULT AND DISCUSSION

Below is the result of descriptive statistics analysis.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
CED	30	.000	.940	.3947	.3495
PROPER Rating	30	3.000	5.000	3.7333	.8683
Company Size	30	28.290	37.630	30.5623	1.7680
Profitabilit y	30	.000	.394	.0870	.1009
Leverage	30	.003	.923	.4966	.2447
Media Exposure	30	.000	1.000	.4667	.5074
Valid N (listwise)	30				

Source: processed secondary data (2018)

The number of data observations in the result of the descriptive statistics analysis test in table 1 was 30. The PROPER rating variable has the lowest value of 3.000, the highest value of 5.000, and the mean value of 3.7333 and the standard deviation value of 0.86834. The mean value of 3.7333 is greater than the standard deviation value of 0.8683. This indicates that there is a low deviation. It can be concluded that the data distribution of the PROPER rating is prevalent.

The lowest value of company size is 28.290, with the highest value of 37.630, and the mean value is 30.5623. While the standard deviation value is 1.7680, the mean value of 30.5623 is greater than the standard deviation value of 1.768043. This indicates that there is a low deviation then it can be concluded that the data distribution is prevalent.

The profitability variable has a minimum value of 0.000, the largest value of 0.394, the mean value 0.0870, and the standard deviation value of 0.1009. The mean value of 0.08700 is smaller than the standard deviation value 0.100913. This indicates that there is a high deviation, and it can be concluded that the independent commissioners' data distribution is prevalent.

Based on the descriptive statistics, the leverage variable has the lowest value of 0.003, the highest value of 0.923, a mean value of 0.4966, and a standard deviation of 0.2447. The mean value of 0.4966 is greater than the standard deviation value of 0.2447. This indicates that there is a low deviation and can be concluded that the data distribution of executive compensation is prevalent.

The media exposure variable has a minimum value of 0.000, the largest value of 1.000, the mean value of 0.4667, and the standard deviation value of 0.5074. The mean value of 0.4667 is smaller than the standard deviation value of 0.5074. This indicates that there is a high deviation, then it can be concluded that the media exposure data distribution is not prevalent or uneven.

The carbon Emission Disclosure variable has the lowest value of 0.000, the highest value of 0.940, the mean value of 0.3947, and the standard deviation value of 0.3495. The mean value of 0.3947 is greater than the standard deviation value of 0.3495. This indicates that there is a low deviation, then it can be concluded that carbon emission disclosure data distribution is prevalent.

The higher PROPER rating that the company acquired does not necessarily provide evidence that the company is responsible for the carbon emission reduction efforts. Companies with high PROPER ratings tend not to speak for their emissions because they think their environmental management performance is good so that they do not have the initiative to disclose the carbon emissions. The test results showed that PROPER rating does not influence the carbon emission disclosure. It is in line with the research of Majid &Ghozali (2015) and Jannah (2014) that stated companies with high PROPER ratings think that they do not need to disclose their carbon emissions. It is because their environmental management efforts prove that company performance is good.

The larger size of the company does not indicate that the sensitivity toward carbon emission disclosure is greater. The company only focuses on its resources without paying attention to the effect of its operating activities. The more assets of the company do not give any effect of concern toward the emissions produced by the greater intensive carbon.

It is supported by the research conducted by Pratiwi (2017) that stated that the company size does not influence Carbon Emission Disclosure.

The better financial performance of the company makes the company ignore greenhouse emission reduction efforts. It is because the company only focuses on profit regardless of the effects of its operations. The company only focuses on the profit by using the assets without considering that the legitimacy of the community to the company's environmental responsibility is critical.

This is supported by the research by Citra Pratiwi (2016) that concluded profitability has no significant effect on the carbon emissions disclosure because when the company earns a high profit, the management thinks there is no need to report things that could interfere the company's success in its financial terms.

High leverage indicates that the company will strive to pay its previous obligations instead of carbon emission disclosure. The company limits the funds to be issued to carbon emission disclosure, such as spending on human and financial resources to analyze the company's emissions. High leverage also is not an interesting thing for investors to invest in companies that carry out carbon emission disclosure. This is because when the company discloses carbon emission, the investor and other parties will difficult to understand the carbon emissions disclosure.

This is in line with the research by Pratiwi (2017) that suggested leverage has no influence on the Carbon Emission Disclosure because there has been a good relationship between the company with stakeholders, shareholders, and debt holders, which led to debt holders do not pay attention to companies that conduct carbon emission disclosure.

According to the theory of legitimacy, the only way for the entity to survive is if the community assumes that the activities of the entity are aligned with the environment. So that the company will strive for legitimacy through carbon emission disclosure, in order to reduce the pressure of the community or environmental activists.

The media news makes the company will get more attention from the community, and the company's reputation is increasingly supervised. Therefore, carbon emission disclosure will give a positive reputation when the media exposure to the company is high. It is because people will supervise and pay attention to the environmental efforts and responsibilities of the company so that the legitimacy of society will be better. It is supported by the research conducted by Jannah (2014) and Majid & Ghozali (2015) that explained the role of media could encourage the company to conduct Carbon Emission Disclosure. A company that gets more attention from online media will conduct voluntary disclosure of greenhouse gas emissions because, by the expose, the company is more motivated in disclosing the carbon emissions.

4. CONCLUSIONS

Based on the research results and discussion, some conclusions can be taken as follows the PROPER rating, company size, profitability, leverage are not proven in influencing the Carbon Emission Disclosure. It means the higher PROPER rating of the company will not make the company conducts emission reduction efforts through Carbon Emission Disclosure.

The company size did not influence Carbon Emission Disclosure. It means that the greater size of the company, especially with the many assets, does not give any consequences. While media exposure is proven in influencing Carbon Emission Disclosure. It means, the more media highlights to the company, especially from online media as external parties, the higher the company will conduct the disclosure of greenhouse gas emissions. It is because, through the expose, the company will get a legitimacy reputation from the community.

The limitation of this research is that the samples were quite a few, with observing only two years from 2016-2017. There is subjectivity in measuring the broad carbon emission disclosure. Suggestions for future research are to use samples and increase the observation period so that the research results are more valid. It also needs to add some variables that can influence the Carbon Emission Disclosure, such as corporate governance, financial performance, and environmental management system. In addition, it also needs to consider regulations that are related to the standard provisions on the list of carbon emission disclosure items.

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