

Carbon Emission Disclosure: Elaboration and Impression of The Size, Leverage, And Profitability Toward The Company Value

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ABSTRACT

The purpose of this study is to investigate the role of carbon emission disclosures in moderating the effect of company characteristics such as company size, profitability, and leverage on company value. This study's sample companies are manufacturing company that are listed on the Indonesia Stock Exchange between 2015 and 2021. Company size, profitability, and leverage are the independent variables in this study. The dependent variable in this study is the company's value, and the moderating variable is carbon emission disclosure. The fixed effect model is the analytical method used. According to the test results, company size and profitability have a positive effect on company value that is moderated by CED, whereas leverage has a negative effect on company value that is moderated by CED.

KEYWORDS: Carbon Emission Disclosure, Company Characteristics, Company Value.

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I. INTRODUCTION:

The industrial world has expanded in various countries, as evidenced by the emergence of new businesses. An increase in the industrial sector causes an increase in emissions from the company's operating activities. Greenhouse gases (GHG) and global warming are produced as emissions become more widespread. Increased global warming and climate change will endanger our planet if they are not addressed. Governmental and non-governmental organizations are attempting to address this by enacting interconnected regulations. To reduce global warming, public awareness and related parties must be raised (Andreas dan Lawer, 2013).

Indonesia has ratified the Kyoto Protocol in order to implement sustainable development and participate in efforts to reduce global Greenhouse Gas (GHG) emissions with Law no. 17 of 2004. According to Article 4 of Presidential Regulation No. 61 of 2011, Indonesia is committed to reducing carbon emissions by mentioning that actors participate in efforts to reduce GHG emissions. Efforts by companies as business actors to disclose GHG emissions (including carbon emissions) can be seen in the disclosure of carbon emissions (Carbon Emission Disclosure) (Jannah and Muid, 2014). Government Regulation No. 47 of 2012 company that businesses must exercise social and environmental responsibilities in all of their operations (Said, 2015). The Indonesian Institute of Accountants regulates the practice of disclosing social responsibility. Paragraph 9 of the Statement of Indonesian Financial Accounting Standards No.1 implicitly recommends disclosing social responsibility for environmental and social issues. As a result, financial statement users have expanded beyond shareholders to include all other stakeholders such as employees, suppliers, customers, communities, and others.

Previous research on the disclosure of carbon emissions in Indonesia, i.e. Pradini's (2013), states that PROPER ranking and company size influence the extent of disclosure of carbon emissions, while profitability and leverage have no effect. According to Jannah and Muid (2014), the extent of emission disclosure is influenced by profitability, company size, and leverage, but not by environmental performance (PROPER ranking). According to Ghazali's (2015) research, the extent of carbon emissions disclosure is influenced by company size and profitability, while PROPER classification and leverage have no effect. According to Hanifah's (2016) research, company size and profitability have no effect on carbon emissions disclosures, whereas leverage has a significant positive effect. Lorenzo's (2009) research on the disclosure of carbon emissions outside of Indonesia discovered, among other things, that there is a direct relationship between company size and market capitalization and disclosure of carbon emissions based on the GRI guidelines. According to Rankin et al. (2011), the existence of an environmental management system, public reporting on the Carbon Disclosure Project (CDP), and the use of GRI all influence the extent of voluntary disclosure of

carbon emissions. Then, Chu et al. (2012) discovered in his research that the industrial sector and company size influence greenhouse gas emissions disclosure.

Meanwhile, research on the relationship between emissions disclosure and company value, such as Saka and Tomoki's (2014) study on the disclosure of carbon emissions and company value, shows that disclosure of carbon emissions has an effect on company value. Similarly, Li et al. (2015) investigated the impact of carbon emission disclosures on company value growth via market liquidity and the cost of market equity in China.

According to research on company value that is influenced by company characteristics, such as the Febrianti (2012) study, company value is significantly influenced by company growth, company size, and debt to equity ratio (DER), but not by asset structure, liquidity level, profitability, and leverage. According to Putri and Raharja's (2013) research, (1) CSR has a positive and significant effect on company value, which is driven by the level of CSR disclosure; and (2) managerial ownership acts as a moderating variable, weakening the relationship of CSR to company value. According to Astuti and Setiawati (2014), profitability has an effect on company value. According to Safitri and Wijaya's (2015) research, Earnings Per Share but not by Leverage Ratio, Dividend Payout Ratio, or Managerial Ownership. According to Chumaidah and Maswar's (2018) research, CSR moderated profitability has an effect on company value, whereas CSR moderated company size has no effect on company value.

Specifically, this study refers to Putri and Raharja (2013) and Chumaidah and Maswar (2018). Because there are few studies that examine the indirect relationship between the company's character and the value of the company, the researcher attempts to test the company's character on the value of the company with the moderating variable of emission carbon disclosure in manufacturing companies in Indonesia. The topic of emission carbon disclosure is intriguing because the responsibility that companies have to the environment does not revolve solely around the company. However, because the company's activities produce excess carbon, the company must bear responsibility for global warming.

We anticipate that as the company's social disclosures improve, stakeholders will be more satisfied and will provide full support to the company for all of its activities aimed at increasing the company's size, increasing profits, reducing the proportion of debt, and ultimately increasing the company's value. The manufacturing companies listed on the Indonesia Stock Exchange from 2015 to 2021 are the focus of this study. Furthermore, the inconsistency of previous researchers' results prompted researchers to re-examine the effect of company characteristics on company value by disclosing moderating variables' carbon emissions.

II. OBJECTIVES:

- To find out the company size have a direct negative effect on company value.
- To find out the profitability have a direct negative effect on company value.
- To find out the leverage have a direct positive effect on company value
- To find out the company size has a positive effect on company value that is moderated by carbon emission disclosure
- To find out the profitability has a positive effect on company value that is moderated by carbon emission disclosure
- To find out the leverage has a negative effect on company value that is moderated by carbon emission disclosure

III. METHODOLOGY:

The effect of company characteristics on company value is discussed in this study, which includes carbon emissions as a moderating variable. This study employs a quantitative approach with a hypothesis testing research design to test the effect of variables hypothesized in the study. The population in this study is manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2015 to 2021. Purposive sampling is used in this study.

The variables in this study are as follows: 1) the company's characteristics as an independent variable that is proportional to the company's size, profitability, and leverage, 2) the company's value as the dependent variable, and 3) disclosure of carbon emissions as a moderating variable.

The analytical method employed is moderated regression analysis (MRA), which is a subset of linear multiple regression in which the regression equation includes an interaction element (multiplication of two or more independent variables). MRA model specifications are as follows:;

Tobin's Q = a + b1Ln_TotalAsset + b2ROA + b3DER + b4CD_Indeks + b5LN_TotalAset*CD_Indeks + b6ROA*CD_Indeks + b7DER*CD_Indeks + e.

Information:

Tobin's Q = Company Value measured by Tobin's Q

- a = Constant
- b1,b2,...b7 = Coefficient
- Ln_Total Asset = Company Size measured by Total Asset
- ROA = Return on Asset
- DER = Leverage
- CD_Index = Carbon Disclosure Index
- e = error term

IV. RESULTANDDISCUSSION:

Descriptive statistics provide an elevated overview or description of a set of data. The minimum, maximum, average, and standard deviation are the descriptive statistics used in this study. The following table provides a clear picture of these descriptive statistics:

Table01: Descriptive Statistics Result.

Variable's Name	Mean	Standard Deviation	Minimum	Maximum	Number of Obs.
Tobin's Q	0.729	1.811	0.03	19.83	378
CD_Indeks	0.238	0.246	0.00	0.889	378
Ln_TotalAset	25.682	5.172	5.864	31.563	378
ROA	0.711	7.188	-7.887	106.65	378
DER	1.908	14.763	0.0003	261.647	378

According to Table 1, the average (mean) value of the company (Ln TotalAsset) studied is 25,682. The standard deviation value of 5.172 is lower than the average value, indicating that the company size data is homogeneous, with a low level of variation in the data distribution. The average value (mean) of the profitability (ROA) studied is 0.711. The standard deviation value of 7.168 is greater than the average value, indicating that the profitability data is heterogeneous, with a high variation in data distribution. The average (mean) value of leverage (DER) under consideration is 1,908. The standard deviation value is 14,763, which is greater than the average value, indicating that the leverage data is heterogeneous, with a high variation in data distribution. The average value (mean) of the company value (Tobin's Q) studied is 0.729. The standard deviation value of 1,811 is greater than the average value, indicating that the leverage data is heterogeneous, with a high variation in data distribution. The average (mean) value of carbon emissions disclosure (CD Index) under study is 0.238. The standard deviation value is 0.246, which is greater than the average value, indicating that the carbon emission index data is heterogeneous, with a high variation in the data distribution.

The statistical analysis results (MRA on Panel Data Fixed Effect Model) yield the following; 1) At a significance level of $p < 0.001$, company size has a direct negative effect on company value. Hypothesis 1 (H1) is rejected, and 2) profitability has a direct negative effect on company value at a $p < 0.001$ level of significance. Hypothesis 2 (H2) is rejected, and 3) leverage has a direct positive effect on company value at a $p < 0.001$ significance level. Hypothesis 3 (H3) is rejected, and 4) company size has a positive effect on company value that is moderated by disclosure of carbon emissions with a $p < 0.01$ significance level. Hypothesis 4 (H4) is not rejected, 5) profitability has a positive effect on company value, moderated by disclosure of carbon emissions, with a $p < 0.01$ significance level. Hypothesis 5 (H5) is not rejected, and 6) leverage has a positive effect on company value that is moderated by disclosure of carbon emissions with a $p < 0.01$ significance level. The sixth hypothesis (H6) is not rejected. The R-squared value is 0.339, which equals 33.9%. This means that the independent variables in the model can explain 33.9% of the variance in company value.

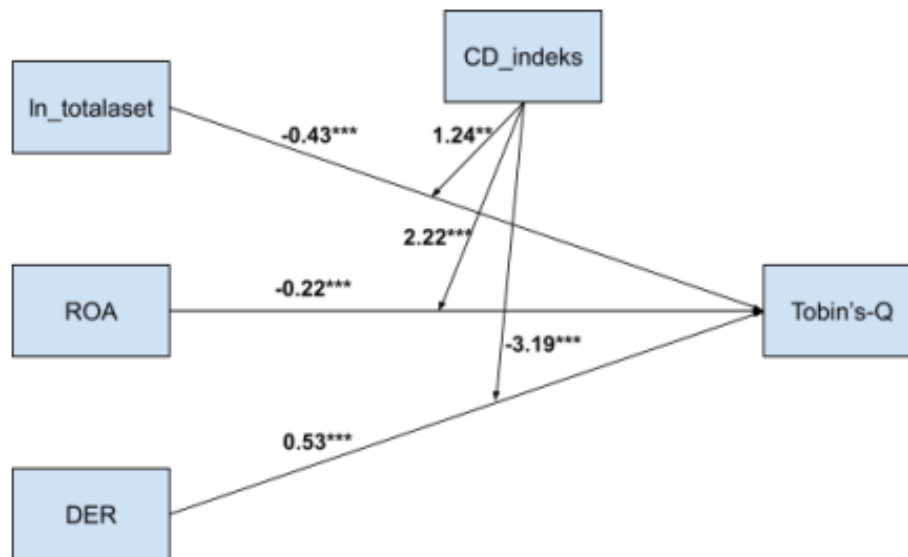


Figure 2. Hypothesis Testing Results

Although hypotheses 1 (H1) and 2 (H2) claim that company size and profitability have a direct negative effect on company value, this has not been proven. The findings of the tests on the first and second hypotheses do not support Febrianti's research (2012). This occurs, and there may be differences in the data used as well as the year of data collection for different samples.

The third hypothesis (H3) states that leverage has a direct positive effect on company value; however, this has not been proven. The results of testing the third hypothesis do not support the findings of Febrianti (2012) and Safitri (2012). (2015). This occurs, and there may be differences in the data used as well as the year of data collection for different samples.

Hypothesis 4 (H4) states that company size has a positive effect on company value that is moderated by carbon emission disclosure; this is proven. The presence of a positive multiple path coefficient indicates that disclosing carbon emissions strengthens the effect of company size on company value. Large companies will pay attention to the extent of disclosure of carbon emission information and disclose carbon emissions in order to provide investors with the information they require. Companies that reduce carbon emissions are more likely to disclose their carbon emissions (Irwantoko dan Basuki, 2016).

Hypothesis 5 (H5) states that profitability has a positive effect on company value that is moderated by the disclosure of carbon emissions, which has been demonstrated. The presence of a positive multiple path coefficient indicates that disclosing carbon emissions strengthens the effect of profitability on company value. This explains how increased profitability and more information disclosed in the disclosure of carbon emissions can increase the company's value. These findings suggest that investors are interested in environmental responsibility carried out by the company as part of the company's reciprocal relationship with the surrounding environment, in addition to profits.

Hypothesis 6 (H6) states that disclosure of carbon emissions moderates the negative effect of leverage on company value; this is proven. The presence of a negative multiple path coefficient indicates that disclosing carbon emissions reduces the impact of corporate leverage on company value. These findings suggest that when leverage is high, companies are less likely to disclose carbon emissions. This occurs because making disclosures will incur additional costs, while the company still has debt obligations that must be met. The findings of this study contradict previous research by Jannah and Muid (2014), which found a positive pattern indicating that leverage has a positive relationship with environmental disclosure, specifically the disclosure of carbon emissions.

V. CONCLUSION:

According to the findings of this study, 1) company size, profitability, and leverage have no direct effect on company value, and 2) company size, profitability, and leverage have an indirect effect on company value with moderating variables on carbon emission disclosure. This suggests that the disclosure of the company's carbon emissions piques the interest of capital market participants in making investments.

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