

# Company Characteristics and Environmental Performance on Carbon Emission Disclosure in Public Companies in Indonesia

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COMPANY CHARACTERISTICS AND ENVIRONMENTAL  
PERFORMANCE ON CARBON EMISSION DISCLOSURE  
IN PUBLIC COMPANIES IN INDONESIA

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**Abstract**-This study aims to analyze the factors that influence carbon emission disclosure in extractive companies in Indonesia. Measurement of the extent of carbon emission disclosure is by using a checklist developed based on the information request sheet provided by the CDP (Carbon Disclosure Project). Factors to be tested are Company Characteristics using Current Ratio, Return on Assets and Debt to Equity Ratio and Environmental Performance using PROPER Ratings. The sample of this study was all extractive companies listed on the Indonesia Stock Exchange in 2016-2018 that were selected using purposive sampling. The data analysis technique used is multiple linear regression analysis. The results of this study show that only environmental performance variables affect the disclosure of carbon emissions, while the Current Ratio, ROA and Debt to Equity Ratio variables do not affect the disclosure of carbon emissions.

**Keywords:** Carbon Emission Disclosure, Company Characteristics, Environmental Performance,

## 1. Introduction

Efforts by the international community to deal with the phenomenon of climate change have been widely carried out, including Indonesia has also committed to reduce carbon emissions which are part of Greenhouse Gas (GHG) emissions by 26 percent in 2020, which is approximately as much as 0.67. Efforts to reduce GHG emissions (including carbon emissions) made by companies as business actors can be known from the disclosure of carbon emissions (Carbon

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Emission Disclosure). Carbon Emission Disclosure in Indonesia is still voluntary disclosure and practice is still rarely done by business companies. Kusumah et al. (2016) suggested that companies that disclose carbon emissions have several considerations including to get legitimacy from stakeholders, avoiding threats, especially for companies that produce greenhouse gases (greenhouse gases) such as increased operating costs, reduced demand (reduced demand), reputational risk, legal proceedings, and fines and penalties. Researchers often question the quality of information conveyed in environmental accounting disclosures, for example: Choi et al. (2013) used Company Size, Profitability, Carbon Emission Levels, Industry Types, and Quality of Corporate Governance as independent variables. Carbon Emission Disclosure is measured using several items in five broad categories relevant to climate change and carbon emissions developed by Choi et al. (2013) based on the information request sheet provided by the CDP (Carbon Disclosure Project). This study aims to analyze the factors that influence carbon emission disclosure in extractive companies in Indonesia.

## 2. Theoretical Framework and Hypothesis Development Theoretical

In Legitimacy theory states that organizations can only survive if the community where the organization is located feels that the organization operates based on the same value system as the value system owned by the community. Legitimacy theory according is an organization basing its business operations on the corporate social environment through an approved social contract and various community wishes as a form of appreciation for organizational approval and corporate sustainability. The company will try to build congruence between its activities and the implications of social values with acceptable norms of behavior in the social system of which the company is a part. Stakeholder theory emphasizes organizational accountability far beyond simple financial or economic performances, a form of voluntary disclosure that is growing rapidly nowadays is the publication of Sustainability Report. This theory states that organizations will choose to voluntarily disclose information about their environmental, social and intellectual performance, over and above their mandatory requests, to meet the true

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or recognized expectations of stakeholders. Carbon Accounting in general is more emphasized on efforts to combine / combine environmental activities related to the reduction of Greenhouse Gas (GHG) emissions that cannot be separated from energy efficiency as well as the costs invested by the company to handle it. Through carbon accounting, each industry can measure the carbon emissions they produce, make strategies to reduce them, record them and report them to corporate stakeholders. The clearer the ecology-based production management benchmarks, the clearer the direction of the change in management accounting paradigm towards carbon accounting (Shodiq and Lisa Kartikasari, 2012).

Carbon emissions are the release of carbon into the atmosphere. Carbon emissions related to greenhouse gas emissions; a major contributor to climate change (ecolife.com). One contributor to carbon emissions is the operational activities of the company. In Indonesia, the disclosure and reporting of this information began to develop with the demands of various regulations issued by the government such as Presidential Regulation No. 61 of 2011 concerning the National Action Plan for Reducing Greenhouse Gas Emissions, Presidential Regulation No. 71 of 2011 concerning the Implementation of the National Greenhouse Gas Inventory and the demands of various company stakeholders. These regulations were issued in order to reduce carbon emissions, (Jannah, 2014). Carbon Emission Disclosure is one example of environmental disclosure which is part of an additional report that has been stated in the PSAK. Environmental disclosure includes the intensity of GHG emissions or greenhouse gas emissions and energy use, corporate governance and strategies in relation to climate change, performance of targets for reducing greenhouse gas emissions, risks and opportunities related to the impact of changes climate (Cotter et al, 2011).

Measurement of the extent of carbon emission disclosure is by using a checklist developed based on the information request sheet provided by the CDP (Carbon Disclosure Project). Factors tested in this study include Company Characteristics and Environmental Performance. Company Characteristics can be seen in the size of the company, the age of the company, and the financial

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performance of a company. Financial performance is a picture of the financial condition of a company that is analyzed with financial analysis tools, so that it can be known about the good and bad financial condition of a company that reflects work performance in a certain period. Financial performance can be reflected through the analysis of a company's financial ratios. Calculation of financial ratios that are often used to find out how the company's financial performance, among others: liquidity / current ratio, profitability ratio, solvency ratio and activity ratio. Current ratio is used to measure the company's ability to meet its current liabilities. Companies with a high level of liquidity means signifying a great ability to pay their short-term obligations on time. A company that can immediately fulfill its financial obligations means that it has good financial performance. Strong financial conditions will encourage companies to disclose more information as an instrument to convince their stakeholders so hypothesis is as follows:

1  
H1: Current Ratio has a positive effect on disclosure of carbon emissions

Profitability is a ratio that measures a company's ability to generate profits in an effort to increase shareholder value. Some research findings that look at the relationship or influence of financial performance with or against disclosure show support for the logic above. Laraswita and Indrayani (2010) 8 found that profitability had a significant positive effect on the completeness of the report disclosure. Laraswita (2010) also states that the net profit margin variable is positively related to the completeness of the disclosure, the hypothesis ia as follows

1  
H2: Return on Assets has a positive effect on disclosure of carbon emissions

Solvency ratios provide information on a company's ability to meet long-term obligations. Regarding the disclosure of carbon emissions, the company manages stakeholders related to expenses related to reducing carbon emissions, the hypothesis is as follows:

H3: Debt to Equity Ratio has a positive effect on disclosure of carbon emissions

The company as a business actor is obliged to manage the operational impacts. The Ministry of Environment and Forestry developed PROPER (Company Performance Rating Assessment Program in Environmental

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Management) as a form of government policy to improve the company's environmental management performance. The environmental impact of the company's activities can be minimized. PROPER is a Public Disclosure Program for Environmental Compliance. PROPER gives ratings to companies that care about the environment. Ratings that can be given include Gold, Green, Blue, Red and Black, the hypothesis is as

H4: Environmental Performance has a positive effect on disclosure of carbon emissions

### 3. Research Method

The population in this study is extractive companies. The selection of extractive companies is based on the fact that companies of this type take raw materials directly for operational activities from nature. Extractive industry sector is one sector that provides income for the country. Raw materials used for production can be in the form of plantation products, forestry, minerals, petroleum, natural gas, coal, textiles, and various types of metals. The sample selection in this study used purposive sampling. The type of data used in this study is secondary data that is quantitative data obtained from [www.idx.com](http://www.idx.com). The data used in this study is the company's annual report for the 2016-2018. While company data included in the PROPER rating list was obtained from the Ministry of Environment and Forestry publication through the website [menlh.go.id](http://menlh.go.id). The PROPER data was obtained from the Ministry of Environment and Forestry publication data in 2016-2018. The model used to test the hypothesis is as

$$ECDisc = \alpha + \beta_1 CR + \beta_2 ROA + \beta_3 DER + \beta_4 PERFORMANCE + e$$

### 4. Results and Discussion

Table 4.1

Result Regression Analysis

Variable	$\beta$	t -test	Sig (* $\alpha= 0.05$ )
Contant	-6,934	-1,577	0,126
<i>Current Ratio</i>	0,003	0,363	0,719
ROA	0,134	1,268	0,215
DER	0.009	0,506	0,617
Performance	6,855	3,208	0,003*

F test 3,529, Sig 0,019

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Based on the results of data processing the current ratio variable <sup>4</sup> does not affect the disclosure of carbon emissions. Companies that can immediately fulfill their financial obligations have good financial performance. Strong financial conditions will encourage companies to disclose more information as an instrument to convince their stakeholders, but based on the results of data processing shows that the current ratio variable does not affect, this may provide information in the annual report does not focus on disclosure of information about the environment but other information that is considered more profitable for the company to convince its stakeholders.

Companies that have good financial performance capabilities will have high confidence to inform their stakeholders, because the company is able to show them that the company can meet their expectations, especially investors and creditors. As a result, <sup>8</sup> companies with a high level of profitability will tend to disclose their environment, but the results of data processing in this study show the opposite, ROA <sup>1</sup> variable has no effect on disclosure of carbon emissions. One reason why Return on Assets <sup>8</sup> does not affect the disclosure of carbon emissions is that disclosures made by companies still take into account the advantages and disadvantages of the company when disclosing information to its stakeholders. The company still thinks that stakeholders have difficulty understanding information about carbon emissions compared to other financial information. <sup>1</sup> The debt to equity ratio (DER) <sup>3</sup> ratio shows results that do not affect the disclosure of carbon emissions, these results indicate that disclosure of potential risks due to climate change is more needed by investors than creditors. The environmental performance shows that the company also pays attention to the environmental conditions in which the company exploits nature as one of the ingredients to produce goods, with a rating given by the Ministry of Environment and Forestry through PROPER activities.

The results of data processing show <sup>4</sup> that environmental performance significantly influences the disclosure of carbon emissions. These results show that as companies reveal more about environmental information, they increase their

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rankings in the PROPER Program. Hypothesis test results indicate that the F test value of 3.529 with a significance value of 0.019 smaller than the alpha level of 0.05 then the model (goodness of fit) of the regression model is feasible. Based on the results of data processing the current ratio variable does not affect the disclosure of carbon emissions. Companies that can immediately fulfill their financial obligations have good financial performance. Strong financial conditions will encourage companies to disclose more information as an instrument to convince their stakeholders, but based on the results of data processing shows that the current ratio variable does not affect, this may provide information in the annual report does not focus on disclosure of information about the environment but other information that is considered more profitable for the company to convince its stakeholders.

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environmental performance significantly influences the disclosure of carbon emissions. These results show that as companies reveal more about environmental information, they increase their rankings in the PROPER Program.

### 5. Conclusion, Implication and Limitation

This study aims to prove the company's characteristics and environmental performance affect the disclosure of carbon emissions. Company characteristics are proxied by using the variables Current Ratio, Return on Assets (ROA), and Debt to Equity Ratio (DER) while environmental performance is proxied using the rating given by PROPER. The study used a sample of 11 extractive companies listed on the Indonesia Stock Exchange during the period 2016-2018. The results showed the Current Ratio variable, the Return on Asset (ROA) variable and the Debt to Equity Ratio (DER) variable had no effect on carbon emissions disclosure, whereas Environmental Performance variables affect the disclosure of carbon emissions.

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