The Effect of Good Corporate Governance, Company Size, and Profitability on Carbon Emission Disclosure

I Putu Andika Prasetyo *, Ni Putu Sri Harta Mimba **

* Faculty of Economics and Business, Udayana University, Bali, Indonesia
** Faculty of Economics and Business, Udayana University, Bali, Indonesia

* *Email correspondent: bilqis.wnb@gmail.com

DOI: 10.29322/IJSRP.11.06.2021.p114101
http://dx.doi.org/10.29322/IJSRP.11.06.2021.p114101

Abstract- This study aims to determine and analyze the effect of Good Corporate Governance, Company Size, and Profitability on Carbon Emission Disclosure in mining and manufacturing companies listed on the Indonesia Stock Exchange for the 2017-2019 period. The sampling technique used was purposive sampling method. Data was collected through non-participant observation methods. The analysis technique used is multiple linear regression. The results of the study indicate that good corporate governance has a significant positive effect on carbon emission disclosures. This indicates that the better the quality of corporate governance of a company, the higher the company's carbon emission disclosures. Company size has a significant positive effect on carbon emission disclosures. This shows that the size of the company affects the company's carbon emission disclosures. However, profitability has no effect on carbon emission disclosures. This shows that the high and low profitability of the company has no effect on the company's carbon emission disclosures.

Keywords: Good Corporate Governance, Company Size, Profitability, Carbon Emission Disclosure

I. Introduction

The environment is must be preserved and developed to remain a source of life support for humans and other living creatures for the sake of continuity and improvement of the quality of life itself. Humans need natural resources, in the form of land, water, air, and other natural resources that are included in renewable and non-renewable natural resources (Hoştut & Deren van het Hof, 2020). However, it must be realized that the natural resources that we need have limitations in many ways, namely limitations on the availability of natural resources according to the quantity and quality available (Kılıç & Kuzey, 2019). Limited resources are inversely proportional to the increase and growth of the industry which certainly uses natural resources to support industrial operations. In 2018 industrial growth reached 4.07%. The rapid industrial growth not only shows the success rate of economic growth but also becomes one of the causes of significant environmental problems and has a global impact on life, namely climate change in the form of global warming. (Pratiwi & Sari, 2016).

The company's operations generate large amounts of carbon emissions (Prafitri & Zulaikha, 2016). The biggest contribution to the increase in world carbon that causes global warming is the consumption of fossil energy (Widianto & Sari, 2020). About 70% of the world's carbon emissions are the use or consumption of fossil energy. An increase in the company's operational activities which causes worsening air quality. Air quality in Indonesia has increased in 2019 by 51.7 g/m3. This value is higher than in 2018 which was 42 g/m3. This indicates that the air quality is poor due to the large carbon emission content. One of the factors causing poor air quality in Indonesia is the company's activities that do not pay attention to environmental aspects. The activities of a company have a major impact on increasing the concentration of carbon gas and can cause an environmental crisis. On that basis, the company pays more attention to the disclosure of carbon gas concentration suppression (Dewi & Yasa, 2017).

Carbon disclosures are often presented in the form of voluntary disclosures for internal and external decision making. Carbon disclosure will make it easier for stakeholders to consider decisions about the state of the company's carbon emission performance, pressure companies to reduce carbon emissions and contribute to public debate on climate change policies and regulations. Stakeholders need a report on the level of carbon emissions disclosed in the sustainability report. This is done so as not to reap protests from stakeholders and can eliminate stakeholder legitimacy. The preparation of a sustainability report is very important, because it contains disclosure standards that indicate the level of activity of the company as a whole. The issue of climate change is an interesting phenomenon to be studied in the field of sustainability accounting related to the environment. Regarding the issue of climate change, where the world community has started to care about their environment and various ways they do to repair the damaged nature. In response to these issues, companies are paying more attention to the disclosure of carbon emissions (Astiti &

Wirama, 2020).

Environmental issues raise attention from various parties such as the government, environmentalists, community institutions, shareholders, and creditors. With increasing attention from various parties, the company is faced with hard pressure to carry out its operational activities based on the environment. Actions in the form of pressure from stakeholders for non-compliance with company activities on the environment also occur in Indonesia. Competition in industrial activities without thinking about the environmental impact around the industry can cause environmental pollution. In this case, the role of the government is very much needed to regulate industrial governance so as not to pollute the environment and cause environmental damage. Issues related to the environment that occur today are not only related to the company's responsibility to the environment, but also related to climate change which is mostly caused by company activities. The difference in the interests of each company causes the disclosure of environmental responsibility to also differ (Solikhah & Winarsih, 2016). The company should not only focus on the interests of the company, but also observe the interests of parties outside the company (Subagiastra et al. 2017).

Each company has a different motivation because of regulations related to disclosure. The company will disclose some information to increase the value of the company. If the company reduces carbon emissions in terms of production, then the company can indirectly reduce air pollution. In addition, the reason companies disclose carbon emissions is to gain legitimacy from the community (Pratiwi, 2017). Big companies certainly have large shareholders. Therefore, shareholders will be interested in the company's activities and use disclosure to communicate the company's efforts to gain public/community support. With this, companies can avoid threats such as increased operational costs, reduced demand, reputation risk and fines. Pratiwi (2017) shows that regulators and institutional leadership have a significant effect on carbon emission disclosures. However, leverage, size, and profitability have no significant effect on carbon emission disclosures. Irwhantoko & Basuki (2016) show that only the ratio of debt to equity has a significant negative effect. Meanwhile, other factors have no significant effect on the disclosure of carbon emissions in Indonesia. Prafitri & Zulaikha (2016) show that environmental management systems, environmental performance, company size, ROA and industry type have a positive effect on the disclosure of greenhouse gas emissions, while leverage has a negative effect on the disclosure of greenhouse gas emissions.

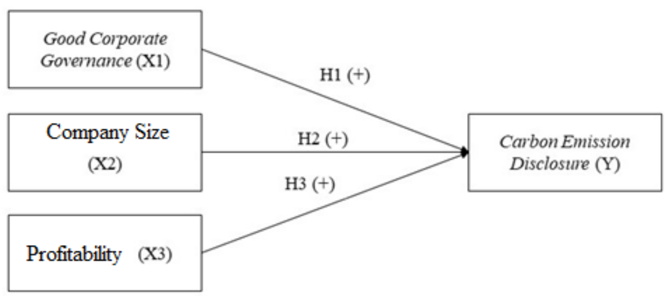

Figure 1. Conceptual Framework

Zanra et al., (2020) stated that the quality of corporate governance has a positive effect on the disclosure of carbon emissions. The implementation of GCG makes the corporate governance system better and it is hoped that the company's performance will be healthy and ultimately improve financial performance. Companies with good financial performance will more widely disclose carbon emissions. The existence of disclosures related to carbon emissions in company reports is considered to show transparency in providing information to the public. The more companies perform good corporate governance, the higher the company will disclose information about the company. Therefore, this indicates that the better the quality of corporate governance of a company, the higher the company's carbon emission disclosures.

H1: Good Corporate Governance has a positive effect on Carbon Emission Disclosure

Company size describes the size of a company that can be seen from total assets, total sales, average total sales and average total assets. (Dewi & Yasa, 2017). Company size can describe the number of operational activities. Based on the legitimacy theory, large companies have greater pressure from environmental problems, tend to increase their response to the environment. Larger companies certainly have more activity (Irwhantoko & Basuki, 2016). Resources owned by the company can be reflected in its size. The larger the size of the company, the greater the resources it has. All the company's operational activities are sometimes directly related to the environment. Therefore, in addition to the company running its operations, the company also needs to preserve the environment in order to support its performance. Prafitri & Zulaikha (2016), Mujiani et al. (2019), Dewi & Yasa (2017) which shows that company size has a positive effect on carbon emission disclosures. Large companies are better able to provide quality voluntary disclosures. Large companies are also expected to be able to provide more voluntary carbon disclosures. Large companies are assumed to face great pressure from small companies, so they will increase the disclosure of company information to build a good social image as part of their business strategy. Based on the description of the size of the company, it can be concluded that the larger the size of the company, the greater the company's ability to meet pressures from the community and from other stakeholders and shows that the

greater the company's carbon emission disclosures are carried out.
H2: Company size has a positive effect on Carbon Emission Disclosure.

Legitimacy theory explains that society always puts pressure on companies to care about environmental problems, companies with high profitability are easier to respond to these pressures because companies have more resources that can be used to make environmental disclosures than companies with low profitability, making it easier for companies to gain legitimacy. from society. Cahya (2016), Apriliana (2019), Zanra *et* al., (2020), explained that profitability has a significant positive effect on carbon emission disclosures. Companies with good financial conditions have the financial ability to make decisions related to the environment. On the other hand, companies with poor financial performance are more focused on achieving financial goals and improving performance, thus limiting their ability to prevent and report carbon emissions. Companies with the good financial condition are more likely to disclose financial information. Financial performance capabilities include company initiatives to contribute to efforts to reduce emissions or in this case carbon emissions such as replacing machines that are more environmentally friendly. The community will always pressure the company to carry out social responsibility towards the environment. Companies with good performance also serve to expand disclosure. Although disclosure of carbon emissions is still voluntary, companies with good performance will be able to do so. Profitability is often a benchmark in carrying out environmental responsibility. Companies with high profitability have more resources that can be used to make environmental disclosures than companies with low profitability so that companies get legitimacy from the community. This shows that the high and low profitability of the company affects the company's carbon emission disclosures.
H3: Profitability has a significant positive effect on Carbon Emission Disclosure.

II. METHODS

Based on the characteristics of the problem to be studied, this study uses a quantitative approach in the form of causal associative which is research with the nature of questioning the relationship between two or more variables and is causal. With associative research, a theory can be built that is used to explain and control a symptom. This study examines the influence of good corporate governance, company size, and profitability on carbon emission disclosures. In this study, a population of 231 companies was obtained. The samples used in this study were mining and manufacturing companies listed on the IDX that publish sustainability reports and disclose information on carbon emissions in the 2017-2019 period. The method of determining the sample chosen is nonprobability sampling with the purposive sampling technique. The criteria for the sample companies in this study are mining and manufacturing companies that disclose carbon emissions through annual reports and company sustainability reports consistently in 2017-2019 and at least disclose one item of carbon-emissions disclosure. Based on population screening to obtain samples that match the criteria, the samples obtained are 23 companies with 3 years of observation from 2017-2019. In this study, the data collection method used is the non-participant observation method. Non-participant observation is a method of collecting data without involving people, the researcher is only an independent observer. The data analysis technique used in this study is multiple linear regression through the Statistical Product and Service Solutions (SPSS) version 25.

III. RESULTS AND DISCUSSION

Testing the hypothesis of this study using multiple linear regression analysis. Multiple linear regression analysis is an analysis that serves to measure the strength of the relationship between two or more variables and shows the direction of the relationship between the independent variable and the dependent variable. The results of multiple linear regression testing in this study are presented in table 1.

Table 1. Results of Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.700	1.781		-0.393	0.695
	GCG	0.084	0.068	0.147	2.348	0.022
	CZ	0.634	0.196	0.373	3.238	0.002
	PROF	-2.392	0.721	-0.391	-1.271	0.209

Adjusted R^2	0.308
F count	4.585
Sig. F	0.006

Primary Data, 2020

The adjusted R square value shows a value of 0.308. This indicates that 30.8 percent of the variation in carbon emission disclosures of mining and manufacturing companies listed on the Indonesia Stock Exchange from 2017-2019 is explained by the variables of good corporate governance, company size, and profitability, while the remaining 69.2 percent is influenced by other factors. other factors not included in the regression model. Fcount (4,585) > Ftable (2,750) and sig. F = 0.006 < = 0.05. The results show that the equation model in this study is feasible to use, and simultaneously the three variables, namely good corporate governance, company size, and profitability have a significant effect on carbon emission disclosures in mining and manufacturing companies listed on the Indonesia Stock Exchange for the 2017-2019 period.

Effect of Good Corporate Governance on Carbon Emission Disclosure

The first hypothesis explains that good corporate governance has a positive effect on carbon emission disclosures. Testing the effect of good corporate governance on carbon emission disclosures shows significant results with a significance value (p-value) with the value of the good corporate governance (GCG) variable of 0.022, smaller than = 0.05. Thus, it can be concluded that the **first hypothesis is accepted**. The existence of disclosures related to carbon emissions in company reports is considered to show transparency in providing information to the public. The more companies perform good corporate governance, the higher the company will disclose information about the company. The meaning of the results of this hypothesis is that the better the quality of corporate governance of a company, the higher the company's carbon emission disclosures. Companies that have good corporate governance quality provide higher carbon emission disclosures. These results also support the theory of legitimacy, where corporate governance in developing companies is based on the theory of legitimacy. Companies in running their business are required to care about the environment by developing policies to reduce emissions due to company activities. The influence of the quality of corporate governance on carbon emission disclosures also supports the stakeholder theory. Stakeholder theory states that companies do not only focus on their own interests in seeking profits but must be able to provide benefits to stakeholders. Companies that have good corporate governance will provide information related to carbon emission disclosures transparently to stakeholders. With the implementation of a good corporate governance mechanism, the company's corporate governance system becomes better, so that it can guarantee more effective management decisions.

Effect of Company Size on Carbon Emission Disclosure

The second hypothesis states that company size has a positive effect on carbon emission disclosures. Testing the effect of company size on carbon emission disclosures shows significant results with a significance value (p-value) of the company size variable of 0.002, which is smaller than = 0.05. Thus, it can be concluded that the **second hypothesis is accepted**. Companies that have large company sizes will carry out carbon emission disclosures. Large companies are better able to provide quality voluntary disclosures. Large companies are also expected to be able to provide more voluntary carbon disclosures. Large companies are assumed to face great pressure from small companies, so they will increase the disclosure of company information to build a good social image as part of their business strategy. These results also support the legitimacy theory, where large companies have greater pressure on environmental issues so they tend to increase their response to the environment. Larger companies certainly have more activity. The underlying reason is that large companies are more open to the public and government oversight thus encourages voluntary reporting. Larger companies are more likely to provide voluntary disclosures because they carry out activities that affect the environment, giving rise to greater scrutiny from the public and government. In addition, large companies generally have shareholders who may be interested in social change and environmental activities. The size of the company affects carbon emission disclosures because carbon emission disclosures are aimed at efforts to reduce the impact of climate change through emission reductions.

Effect of Profitability on Carbon Emission Disclosure

The third hypothesis states that profitability has a positive effect on carbon emission disclosures. The test of the effect of profitability on carbon emission disclosures showed insignificant results with a significance value (p-value) of the profitability variable of 0.209, greater than = 0.05. Thus, it can be concluded that the **third hypothesis is rejected**. Companies with good financial conditions will not necessarily disclose financial information. Financial performance capabilities include the company's initiatives to contribute to emission reduction efforts or in this case carbon emissions such as the replacement of more environmentally friendly machines may be ignored by the company as a result of the company only focusing on profits. This shows that the high and low profitability of the company does not affect the company's carbon emission disclosures. Legitimacy theory states that companies that have good financial performance will get pressure from the public to disclose financial information. Then the stakeholder theory states that the company is not an entity that only cares about profit, but can provide benefits to the environment and social community. The results of this study indicate that the company's profitability as measured by ROE is not able to be a determining factor for the extent of carbon emission disclosures. The results of this study also indicate that companies that reduce carbon emissions and seek to improve the quality of energy and production processes derived from renewable energy will require greater environmental costs. The level of profitability does not affect carbon emission disclosures, possibly due to irrelevant profits and costs. The costs incurred to reduce carbon emissions by using equipment that can reduce emissions are not commensurate with the benefits obtained by the company. The increase in environmental costs is considered not to provide greater benefits for the company. If the increase in disclosure costs is not matched by an increase in profitability, then this shows that there is no benefit for companies that carry out carbon emission disclosures.

IV. CONCLUSION

Based on the results of research on the factors that affect carbon emission disclosures in mining and manufacturing companies listed on the Indonesia Stock Exchange, it can be concluded that good corporate governance has a positive effect on carbon emission disclosures. This indicates that the better the quality of corporate governance of a company, the higher the company's carbon emission disclosures. Company size has a positive effect on carbon emission disclosures. This shows that the size of the company affects the company's carbon emission disclosures. Profitability does not affect carbon emission disclosures. This shows that the high and low profitability of the company does not affect the company's carbon emission disclosures.

For further research, it is recommended to conduct more comprehensive research regarding the effect of profitability on carbon emission disclosures. Further research can use other proxies as variable measurements. For example, researchers can replace the measurement of profitability variables by using other ratios such as net profit margin ratios, return of assets (ROA), and others. Further researchers can consider examining the possibility that profitability can be used as a moderating variable for carbon emission disclosures. The coefficient of determination (adjusted R2) in this study was 30.8 percent, which means that 69 percent of the variable carbon emissions disclosures were explained by other variables that were not used in this study. Seeing the relatively small adjusted R2, further research is recommended to extend the research period or add variables that allow to explain the variable carbon emission disclosure. Further research is recommended to use the GCG index which can represent the entire implementation of GCG in the company. This is done because in this study the measurement of GCG is only seen from the elements of the GCG structure that provide supervision to the company's activities.

REFERENCES

[1] Apriliana, E. (2019). Pengaruh Tipe Industri, Kinerja Lingkungan, Dan Profitabilitas Terhadap Carbon Emission Disclosure. *Widyakala Journal*, *6*(1), 84. https://doi.org/10.36262/widyakala.v6i1.149

[2] Cahya, B. T. (2016). Carbon Emission Disclosure: Ditinjau dari Media Exposure, Kinerja Lingkungan dan Karakteristik Perusahaan Go Public Berbasis Syariah di Indonesia. *Nizham Journal of Islamic Studies*, *5*(2), 171–188.

[3] Dewi, O. Y. I. A. P., & Yasa, G. W. (2017). Pengaruh Ukuran Profitabilitas, Tipe Industri Dan Kinerja Lingkungan Terhadap Environmental Disclosure. *E-Jurnal Akuntansi Universitas Udayana*, *20*(3), 2362–2391.

[4] Hoştut, S., & Deren van het Hof, S. (2020). Greenhouse gas emissions disclosure: comparing headquarters and local subsidiaries. *Social Responsibility Journal*, *16*(6), 899–915.

[5] Irwhantoko, I., & Basuki, B. (2016). Carbon Emission Disclosure: Studi pada Perusahaan Manufaktur Indonesia. *Jurnal Akuntansi Dan Keuangan*, *18*(2), 92–104. https://doi.org/10.9744/jak.18.2.92-104

[6] Kılıç, M., & Kuzey, C. (2019). The effect of corporate governance on carbon emission disclosures: Evidence from Turkey. *International Journal of Climate Change Strategies and Management*, *11*(1), 35–53.

[7] Mujiani, S., Juardi, & Fauziah, F. (2019). Determinan Carbon Emission Disclosure pada Perusahaan BUMN yang Terdaftar di Bursa Efek Indonesia Periode 2013-2017. *Jurnal Ilmiah Akuntansi Fakultas Ekonomi*, *5*, 53–64. https://doi.org/10.1017/CBO9781107415324.004

[8] Prafitri, A., & Zulaikha. (2016). Analisis Pengungkapan Emisi Gas Rumah Kaca. *Jurnal Undip*, *13*(2), 155–175.

[9] Pratiwi, D. N. (2017). Pengaruh Stakeholder terhadap Carbon Emission Disclosure. *Journal of Accounting and Finance*, *2*(1), 287–295. https://doi.org/10.1016/j.sbspro.2015.04.758

[10] Pratiwi, P. C., & Sari, V. F. (2016). Pengaruh Tipe Industri, Media Exposure, Dan Profitabilitas Terhadap Carbon Emission Disclosure. *Jurnal WRA*, *4*(2), 829–844. https://doi.org/10.5151/cidi2017-060

[11] Solikhah, B., & Winarsih, A. M. (2016). Pengaruh Liputan Media, Kepekaan Industri, Dan Struktur Tata Kelola Perusahaan Terhadap Kualitas Pengungkapan Lingkungan (The Effect Of Media Coverage, Industry Sensitivity And Corporate Governance Structure On Environmental Disclosure Quality). *Jurnal Akuntansi Dan Keuangan Indonesia*, *13*(1), 1–22.

[12] Subagiastra, K., Arizona, I. P. E., & Mahaputra, I. N. K. A. (2017). Pengaruh Profitabilitas, Kepemilikan Keluarga, Dan Good Corporate Governance Terhadap Penghindaran Pajak (Studi pada Perusahaan Manufaktur di Bursa Efek Indonesia). *Jurnal Ilmiah Akuntansi*, *1*(2), 167–

193. https://doi.org/10.23887/jia.v1i2.9994
[13] Widianto, I., & Sari, D. P. (2020). The Effect of Environmental Performance , Leverage and Company Size Towards Carbon Emission Disclosure on Rated Proper Company in 2015-2018. *Journal Of Accounting, Entrepreneurship And Financial Technology (JAEF)*, *1*(2), 1–17.
[14] Witri Astiti, N. N., & Wirama, D. G. (2020). Faktor-Faktor yang Memengaruhi Pengungkapan Emisi Karbon pada Perusahaan yang Terdaftar di Bursa Efek Indonesia. *E-Jurnal Akuntansi*, *30*(7), 1796–1810. https://doi.org/10.24843/eja.2020.v30.i07.p14
[15] Zanra, S. W., Tanjung, A. R., & Silfi, A. (2020). The Effect of Good Corporate Governance Mechanism, Company Size, Leverage and Profitability for Carbon Emission Disclosure with Environment Performance as Moderating Variables. *Bilancia: Jurnal Ilmiah Akuntansi*, *4*(2), 148–164.