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Do Carbon Emission Reporting and Carbon Trading Policies Improve Corporate Business Sustainability?

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ABSTRACT

Purpose : The objective of this study is to examine and analyze the impact of carbon emission disclosure and carbon trading on improving corporate sustainability.
Method : The data used in this study are secondary data obtained by documentation techniques. The sample in this study used 130 manufacturing companies in 2023. The data analysis technique in this study used IBM SPSS Statistics 26 software with stages including descriptive statistics, classical assumption tests, multiple linear regression analysis.
Findings : The results of the study show that carbon emission disclosure has a positive effect on business sustainability. While carbon trading policies do not affect business sustainability. Carbon trading policies have not been widely implemented by companies in Indonesia, because companies in Indonesia are still in the process of preparing to implement carbon trading policies.
Novelty : Research in Indonesia on the impact of carbon emission disclosure and carbon trading leading to business sustainability is still rarely conducted, researchers focus on company performance and bridge the issues related to environmental damage caused by manufacturing companies, efforts that can be made by manufacturing companies. Therefore, it is necessary to conduct research on the impact of carbon emission disclosure and carbon emission trading policies on business sustainability.

INTRODUCTION

The issue of negative impacts from industry or companies related to environmental damage has become an issue that is widely discussed in the industrial world, including Indonesia (Su et al., 2018). The problem of environmental damage is not only limited to corporate social responsibility (CSR), but also the problem of carbon emissions. This condition has provided opportunities as well as challenges for accountants to contribute to supporting the reduction of carbon emissions through disclosure and presentation of carbon trading activity information in accordance with generally accepted accounting standards. The accounting profession has a crucial role related to financial governance, treatment, measurement, recording, recognition, and presentation of gas emission report information, as well as its influence on financial performance and stakeholder value that impacts the entity's image and going concern (Kabir et al., 2021). Based on Haigh and Shapiro (2012), there are several stakeholders who are the main objectives of the entity in presenting a complete report. Good governance in presenting the company's annual financial report will increase investor confidence and encourage good decision making for stakeholders.

The classic problem that occurs due to the absence of standard standards related to carbon emission report accountability, so that the application of carbon accounting does not yet have a significant position in Indonesia (Busch et al., 2022). This fact is contrary to the demands of the sustainability concept for environmental damage in Indonesia which continues to increase due to carbon emissions Yang et al., (2023) and demands from green stakeholders who also need accountability reports related to carbon emission aspects to analyze company performance towards the environment (Choi & Luo, 2021). The accounting profession as a foundation for solving problems related to reporting business entity activities on carbon emissions is starting to be required to transform in building the country's economy through the development of a sustainable industry (sustainability business concept).

In 2010, the Association of Chartered Certified Accountant (ACCA) Research Report in collaboration with

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the International Emission Trading Association (IETA) stated that disclosure of carbon emission reports has not been widely developed in several countries, especially non-annex countries due to several considerations. The tendency is that companies present carbon emission reports voluntarily (voluntary disclosure) to assist internal and external decision making (Karim et al., 2021). Disclosure of carbon accounting is part of the disclosure of environmental reports and sustainability reports (Downar et al., 2021), this disclosure has become mandatory for companies to report since 2017. This disclosure relates to the intensity of GHG gas emissions, energy use, corporate governance, and strategies related to the impact of climate change according to (Caputo et al., 2021).

The level of relevance of the company's carbon emission accountability as a business actor can be known through Gas Emission Disclosure (Alessi et al., 2021). Based on IFRS (International Financial Reporting Standard) 101 Paragraph 10, it states that environmental reports are presented as additional reports in the financial statements for entities in accordance with PSAK 1 Revised 2009 (IAI, 2009). According to Demaria & Rigot, (2021), there is an impact that is directly received by the entity related to the disclosure of gas emission reports in the company's financial statements, namely:

"...as disclosing the environmental information would obtain market benefit as well as the ability to gain profit from investment in environmental improvement..."

Entities that voluntarily take responsibility for the quantity of carbon gas emissions and report them in the gas emission report will have a positive impact on the entity's stakeholder value. The impact will increase the interest of investors and stakeholder groups to contribute to companies that care about carbon gas emissions because of the trust value that the entity has implemented the triple bottom line concept (Gunarathne et al., 2021). In line with The Firm of Theory that the main goal of the company is to maximize the company's value to increase the company's profit. In Indonesia, the problem of gas emissions (carbon) has its own scope, carbon accounting has contributed and become the scope of the transformation of the activities of the State Gas Company (PGN) to date (Dembowska, 2021). The problem of reporting standards needs to be developed considering the urgency of its needs in order to produce comparable reports.

Research Ding et al., (2019) supports that industrial companies that cause pollution will be more motivated to improve carbon performance. Companies will be more proactive in disclosing carbon emission reductions, carbon trading policies in order to reduce risks to improve corporate sustainability. From an investor's perspective, investors will provide a positive response to companies that are directly involved in reducing carbon gas emissions and investors will provide input on corporate management including disclosure of carbon gas emissions (Lv & Bai, 2021). In order to reduce carbon gas emissions, many countries have implemented carbon trading policies, including Indonesia. The impact of carbon trading is to allocate carbon credits as incentives for industry and other sectors to reduce greenhouse gas emissions, including the manufacturing industry which has many negative impacts on the environment. This carbon trading can encourage the growth of a dynamic and sustainable carbon ecosystem for companies (Haque & Ntim, 2022). Another positive impact of carbon trading is that it becomes an added value for companies in investing in cleaner technology and increasing transparency in emission management.

In recent years, carbon trading has become a major concern for Indonesia, Indonesia's efforts by implementing the Economic Value of Carbon (NEK). The Indonesian government has created a framework that allows various parties to participate in carbon trading, while encouraging economic sustainability. This research aims to focus on how carbon emission reporting and carbon trading policies improve business sustainability. Carbon trading and carbon emissions reporting policies are an effort to reduce the impact of carbon emissions and these policies will have an impact on the sustainability of the company's business. In this case, we propose a research that focuses on the purpose of this research with the object of manufacturing companies as a novelty to be researched in Indonesia. Manufacturing companies are companies that contribute significantly to carbon emission pollution, so the efforts that can be made by manufacturing companies are to convey information about company activities related to the level of carbon emissions and environmental conservation efforts carried out. Until now, research in Indonesia on the impact of carbon emission disclosure and carbon trading on business sustainability is still rare, studies such as (Haque & Ntim, 2022), (Karim et al., 2021), (Choi & Luo, 2021) focus on company performance. The results of this study are expected to provide an overview that carbon trading policies and carbon emission gas reporting will have a positive impact on financial performance and its influence on the sustainability of the company's business. Second, as a basis for the government that carbon trading has a large enough potential to support state revenues so that there needs to be encouragement for companies to carry out carbon trading and the role of the government to encourage the active implementation of carbon trading.

In macro terms, this study aims to see the disclosure of carbon emissions and carbon trading policies affecting the business sustainability of an organization, which in this study is a company. The state must guarantee a decent life and environment for its citizens and be the basis of Indonesia's commitment to controlling climate change, in line with that Indonesia is highly committed to reducing National Greenhouse Gas (GHG) emissions and playing a role in reducing GHG emissions globally. The approach that can be used to support climate change control is through the implementation of the Carbon Economic Value (NEK) policy, which includes an emission reduction mechanism with a carbon trading scheme. In general, this study aims to study the potential for implementing a carbon trading policy to see whether or not there is an effect on the business sustainability of a company and carbon emission disclosure has a role in influencing business sustainability. The benefits of this study are that it can provide an overview that carbon trading policies and carbon emission gas reporting will have a positive impact on financial performance and its influence on the sustainability of the company's business. Second, as a basis for the government that carbon trading has quite large potential to support state revenues so that there needs to be encouragement for companies to carry out carbon trading and the role of the government to encourage active carbon trading.

This study takes the example of a manufacturing company. The growth of the manufacturing industry from year to year has increased, but also increased in relation to emissions from the company's operational activities. The manufacturing sector is related to the environment because its main activity is the process of changing raw materials into finished materials. From this activity, waste is generated. So this raises environmental issues and has an impact on the environment. In addition, digital manufacturing technology is another competitive advantage of sustainability related to social impacts . To bridge these issues, efforts that can be made by manufacturing companies are by conveying information about company activities related to carbon emission levels and environmental conservation efforts that are carried out. This is because the responsibility carried out by companies towards the environment is closely related to the sustainability of the company's business or sustainability. This is related to the theory of corporate legitimacy that will measure, record, present, and disclose carbon information is an implication of the Kyoto Protocol which then gave rise to the term carbon accounting. Research Haque & Ntim, (2022) shows that environmental disclosure, including carbon disclosure, can attract investor interest, meet stakeholder demands, and reduce transaction costs.

In order to align the objectives of the Indonesian government in reducing gas emissions related to the carbon trading trend. Gas emission reduction based on the Kyoto Protocol is divided into 2 systems, namely the credit system and the trading system. Based on the National Council on Climate Change of Indonesia (2012) the gas emission reduction system that is currently widely developed, especially in developing countries (non-annex) which experience many financing constraints, including in Indonesia, is the The-Cap-Trading system or known as carbon trading compared to the carbon credit system. The concept is one of the pillars of the implementation of the carbon trading system as a reduction in gas emissions, because it is related to a simple trading process, lower costs, and is able to provide financial benefits for companies that have a CAP below the upper limit of the trade carried out. Meanwhile, reducing gas emissions using a credit system does not provide financial benefits because there is no gain from the transaction.

In a study conducted Qi et al., (2021), at the inter-country level, carbon trading is very intensively promoted with various objectives, such as between Indonesia and Australia, where countries that exceed a certain carbon emission limit can buy the remaining carbon limit of other countries that are allocated. This concept is known as Cap-And-Trade (based on CAP) in the Kyoto Protocol, carbon trading policies will affect the financial performance of the industry (Yan & Shi, 2024). The existence of financial constraints experienced by the Company has an impact on carbon trading policies that affect the sustainability of the Company's business. Carbon trading policies are influenced by region. Companies in regions with high environmental policy carbon prices have a significant impact on company performance. The economic impact of carbon trading policies will encourage business sustainability.

This study focuses on the impact of carbon emission disclosure and carbon trading policies on the sustainability of corporate business. To face global economic uncertainty and ensure corporate business sustainability, it is not enough to focus only on carbon trading policies but there needs to be research that leads to its impact on corporate business sustainability. In addition, based on carbon gas emission reduction issues, there needs to be carbon emission gas reporting for companies to assess the impact on future business sustainability. Therefore, it is necessary to study the impact of carbon emission disclosure and carbon emission trading policies on business sustainability.

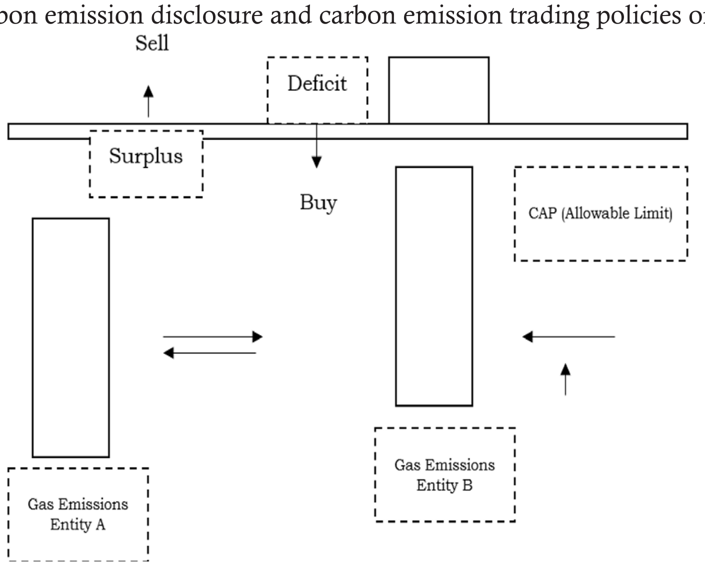

Figure 1. Carbon Trading Transactions
Source: National Council on Climate Change of Indonesia (2012)

Deegan, (2004a), states that companies or industries will be encouraged to report their activities voluntarily if the company considers that this is expected by stakeholders. This social expectation is not fixed, but changes over time. This requires companies to be responsive to the environment in which the company operates (Deegan, 2004b). The company's efforts to identify, allocate, measure, acknowledge and report aspects of carbon emissions produced by the company in the company's financial statements are related to reducing carbon emissions to increase going concern for sustainability business (Bocken et al., 2019). Disclosure of gas emission reports will have a long-term impact on the entity. Entities that are voluntarily responsible for the quantity of carbon gas emissions and report them in the gas emission report will have a positive impact on the entity's stakeholder value. The impact of this will increase the interest of investors and stakeholder groups to contribute to companies that care about gas emissions because of the trust value that the entity has implemented the triple bottom line concept (Elkington, 2017).

Companies that have a higher effect on environmental damage will be more motivated to disclose carbon emissions in order to sustain the company's business Ding et al., (2019). The risks posed by manufacturing companies will encourage companies to take more initiatives to reduce carbon emissions to improve company performance. Companies will respond to climate change and are motivated to legitimize themselves to respond to it with action. To increase their legitimacy, companies will strive to implement their best practices so that companies will be oriented towards reducing emissions or corporate pollution (Choi & Luo, 2021). This is the company's involvement in corporate sustainability efforts and improving environmental performance. Companies will face environmental challenges and for companies, corporate sustainability is a priority so that they seek legitimacy to reduce carbon emissions (Karim et al., 2021). What companies can do is take the initiative to reduce carbon emissions for business strategies and have an impact on business sustainability.

The company's legitimacy can be in the form of disclosing the company's annual report. The company's response to stakeholder needs will have a positive impact on the company's relationship with the carbon emission reporting and its impact on stakeholders (Silva, 2021). The concept of legitimacy, industries or companies seem more likely to report carbon emissions, if the company has a special need to do so and to get support from stakeholders (Datt et al., 2019). Stakeholder support can have an impact on the sustainability of the company's business, therefore information disclosure is important for companies to disclose. This theory shows that the sustainability of a company's business can be influenced by the company's concern for the environment.

H_1: Carbon emission disclosure has a positive impact on business sustainability

In accordance with stakeholder theory, companies will voluntarily provide information on environmental, social and intellectual performance and beyond their mandatory requests, to meet actual expectations or be recognized by stakeholders (Tadros & Magnan, 2019). Companies will strive to provide a good social image by disclosing carbon investment activities that will be provided to consumers, suppliers, investors and other stakeholders to obtain better benefits. The carbon trading system as a reduction in gas emissions, because it is related to a simple trading process, lower costs, and is able to provide financial benefits for companies that have a CAP below the upper limit of the trade carried out (Wang et al., 2019). Implementing a cooperation system with the Environmental Agency to convert the monetary value attached to the costs and acquisitions related to environmental issues, then in carbon trading as an implementation of carbon accounting. Measurement of gas emission trading can be calculated in monetary units and is measurable, so that it can be reported in the company's financial statements periodically (depending on the level of materiality) (Gao et al., 2020). The results of the study Yan & Shi, (2024) stated that the involvement of companies in carbon trading policies will have a positive impact on financial performance, which will affect business sustainability. Good environmental regulation policies will have an impact on companies to be more active in innovative activities to increase company productivity. With a carbon trading policy, companies will adjust existing requirements, so that it becomes a driver for companies to implement the policy and help improve performance (Verde, 2020).

The implementation of a carbon trading policy will give rise to a carbon emission trading market mechanism that provides cash inflow for the company. Thus improving the company's financial performance. Carbon emission trading is a link for lower costs and towards low-carbon development (Koch & Basse Mama, 2019). Carbon policy is the focus of the Indonesian government, namely in order to reduce carbon emissions to address climate change issues. The positive form of carbon trading is that it becomes an incentive for industry including the manufacturing industry and can encourage the growth of a dynamic and sustainable carbon ecosystem for companies in Indonesia, especially for industries that cause a lot of pollution or environmental damage (Haque & Ntim, 2022),.

H_2: Carbon emission trading policy has a positive impact on business sustainability

RESEARCH METHODS

The type of data used in this study is secondary data obtained by documentation techniques in the financial statements of related companies. Secondary data is data that is already available, then the process of analysis and interpretation of the data is carried out according to the objectives of the study. The research data was taken from the financial statements of Manufacturing companies listed on the Indonesia Stock Exchange in 2023. The rese-

Table 1. Sample Criteria

No.	Sample Selection Criteria	Total
1.	Manufacturing companies listed on the IDX for the period 2023	163
2.	Manufacturing companies that do not publish and cannot be accessed their annual reports or sustainability reports during the period 2023	(33)
	Total Sample (1 Year)	**130**

Source: The Processed Primary Data (2024)

arch was conducted in 2023 because the performance of manufacturing companies in 2023 decreased, the context of Environmental Pollution Control increased in 2023 and the impact of processing of manufacturing companies was very high, it is interesting to study whether the disclosure of carbon emissions and carbon trading policies can have a positive impact on the company's environmental performance and its influence on the sustainability of the company's business. The data can be obtained from the official BEI website, namely www.idx.co.id. The sample selection process based on the established criteria can be seen in Table 1.

Carbon Emission Trading Policy Variables

Measurement for carbon emission policies uses dummy variables based on research Yan & Shi, (2024), if a company participates in carbon trading then it is given a value of 1, but if it does not participate then it is given a value of 0.

Business Sustainability Variable

The measurement of business sustainability in this study uses Environmental, Social, and Governance (ESG) disclosure. Environmental, Social, and Governance (ESG) disclosure is a reference used by investors to evaluate companies including to assess the sustainability of a company's business. This study uses measurements based on the disclosure index issued by Foundation, (2020) with 33 Environmental, Social, and Governance (ESG) disclosure items. Measurement of the Environmental, Social, and Governance (ESG) disclosure variable is shown by Equation 1.

$$ESGD = (\sum Xi)/N \quad \ldots\ldots 1$$

Description:
ESGD = Environmental, Social, and Governance (ESG) Disclosure
ΣXi = Number of items disclosed by the company
N = Total required disclosure items

Table 2. Carbon Emission Gas Disclosure Measurement Items

No	Category	Item
1	Climate Change Covering Risks and Opportunities	1. Assessment of company risks and company actions to address those risks
		2. Current assessment of climate change impacts on finance, risks and opportunities
2	Greenhouse Accounting	3. Measurement to measure greenhouse gases
		4. External verification
		5. Total greenhouse gas emissions
		6. Direct greenhouse gas disclosure
		7. Greenhouse gas source disclosure
		8. Greenhouse gas disclosure by segment
		9. Comparison of greenhouse gases from previous period
3	Energy Consumption Accounting	10. Total energy generated
		11. Quantification of energy used from renewable resources
		12. Disclosure based on applicable accounting principles
4	Greenhouse Gas Reductions and Costs	13. Allocation for planned reduction of greenhouse gases
		14. Target for reduction of greenhouse gas emissions each year
		15. Total cost of reduction of greenhouse gases
		16. Total allocation of emission expenditure in the future period
5	Carbon Emissions Accountability	17. Organizations have responsibility for activities on climate change
		18. Mechanisms implemented by bodies

Table 3. Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. Deviation
BS	130	0.29	1.00	0.5647	0.1275
CED	130	0.11	1.00	0.4929	0.1910
CT	130	0	1	0.2443	0.4323

Source: The Processed Primary Data (2024)

Disclosure Variables of Carbon Emissions

In this study to measure carbon emissions disclosure using research Bae Choi et al., (2013) with 18 indices. After that, it is calculated using the formula of the total disclosure index of the company divided by the number of CED indexes. The following disclosure items of 18 CED indices are shown in Table 2.

The data analysis technique in this study used IBM SPSS Statistics 26 software with stages including descriptive statistics, classical assumption tests, multiple linear regression analysis, and hypothesis testing. The regression analysis used in this study is multiple linear regression analysis. The following is the equation model in this study, as shown in Equation 2.

$$BS_{it} = \alpha + \beta_1 \, CED_{it} + \beta_2 \, CT_{it} + \varepsilon \quad \text{.........} 2$$

Desciption:
BS = Business Sustanability
α = Constant
β_1- β_2 = Coefficient
CED = Carbon Emission Disclosure
CT = Carbon Trading Policy
ε = Error

RESULTS AND DISCUSSIONS

Based on table 3, it shows that the number of samples in this study is 130 manufacturing companies during the 2023 period. The business sustainability variable as the dependent variable has a minimum value of 0.29, a maximum value of 1.00, and a standard deviation value lower than its average value, this indicates that the business sustainability variable has a relatively low data distribution from sample companies. The carbon emission disclosure variable as the first independent variable has a minimum value of 0.11, a maximum value of 1.00, and a standard deviation value lower than its average value, this indicates that the carbon emission disclosure variable has a relatively low data distribution from sample companies. The second independent variable, namely the carbon trading policy variable, has a minimum value of 0, a maximum value of 1, and a standard deviation value higher than its average value, this indicates that the carbon trading policy variable has a relatively high data distribution from sample companies.

Based on table 4 shows the results of the normality test of this study shows a significance value of 0.200> 0.05, so it is said that the data in this study are normally distributed. Based on table 4 shows the results of the multicollinearity test for the carbon emission disclosure and carbon trading policy variables show a tolerance value> 0.10 and a VIF value <10, namely 0.955 and 1.047, so it is said that there are no symptoms of multicollinearity. Based on table 4 shows the results of the heteroscedasticity test using the glejser test where the significance value> 0.05, for the carbon emission disclosure variable of 0.183 and the carbon trading policy variable of 0.210, so it is said that there are no symptoms of heteroscedasticity. The results of the determination coefficient test in this study indicate that the carbon emission disclosure and carbon trading policy variables can explain the business sustainability variable by 0.423 or 42.30 %, the remaining 57.70% can be explained by variables outside this study. The results of the hypothesis testing are presented in Table 5.

Table 4. Classical Assumption Test

Variable	Normality Test Results	Multicollinearity Test Results		Heteroscedasticity Test Results	
	Asymp. Sig. (2-tailed)	Tolerance	VIF	t	Sig
(Constant)				8.269	0.000
Carbon Emission Disc.	$0.200^{c.d}$	0.955	1.047	-1.338	0.183
Carbon Trading Policy		0.955	1.046	-1.261	0.210

Source: The Processed Primary Data (2024)

Table 5. Regression analysis

	Hypothesis	B	t	Sig.	Description
(Constant)		8.110	2.760	0.004	
Carbon Emission Disc.	+	0.103	3.896	0.011	H_1 Accepted
Carbon Trading Policy	+	-0.198	-0.345	0.686	H_2 Rejected

Source: The Processed Primary Data (2024)

Disclosure of Carbon Emission Reports and Business Sustainability

Based on the hypothesis test that the variable of disclosure of carbon emission reports has an impact on the sustainability of a Company's business. The company will strive to maintain the credibility of the company, not only financial factors are the company's goal, the company's credibility is the company's goal to maintain the sustainability of the company's activities (Gomez-Trujillo et al., 2020). Disclosure of carbon emission reports carried out by the company will have an impact on the sustainability of a company's business (Pitrakkos & Maroun, 2020). This impact can be seen from the increasing trust of stakeholders, especially investors, the company will continue to strive to maintain the trust of stakeholders in order to maintain the stability of the sustainability of a company. The value of trust for stakeholders can be seen from the company's concern for the environment and voluntarily disclosing carbon emission reports and implementing the triple bottom line concept (Elkington, 2017). The company will get a positive impact and higher profits if the company discloses more information related to carbon emissions to stakeholders (Li et al., 2020).

This study is in line with stakeholder theory, carbon emission reporting disclosed by the company as a basis for assessing whether the investment invested in the company has an impact on the environment. Carbon emission gas reporting disclosed by manufacturing companies illustrates the company's strategy to manage corporate legitimacy (Silva, 2021). Based on this research data, companies that have a higher impact on the environment will report more in the company's sustainability report. Stakeholders in the company expect that the quality of the report disclosed by the company is high, which will minimize the risk for stakeholders (Langrafe et al., 2020). Stakeholders have a big role in a company because they are an important factor in influencing the success and sustainability of the company.

Research Choi & Luo, (2021), shows that carbon emission gas information disclosed by the company affects the market value of a company. Effective corporate governance to manage carbon emission gas will reduce the negative impact of carbon emissions. Disclosure of carbon emission reports will minimize risk, uncertainty and have a long-term impact on the sustainability of the company in the future. This is also in line with research Alsaifi et al., (2020) sustainable companies voluntarily disclose carbon emission gas have a high impact on achieving competitive advantage in the market. Companies that implement and disclose carbon emission gas will provide higher quality results which indicate higher performance.

Carbon Trading Policy and Business Sustainability

Based on the hypothesis test that the carbon trading variable has no impact on the business sustainability of a Company. Based on research data, only 25% of companies implement carbon trading policies, out of a total of 130 manufacturing companies that were the objects of the study. Carbon trading policies have not been widely implemented by companies in Indonesia, because companies in Indonesia are still in the process of preparing to implement carbon trading policies. This is also supported by several studies that reveal that the carbon trading policy scheme has not had a significant impact on reducing carbon emissions (Dong et al., 2019). In terms of government support, the government has issued Presidential Regulation Number 98 of 2021 which regulates the Economic Value of Carbon and its technical procedures have also been regulated in the implementing regulations with the Regulation of the Minister of Environment and Forestry. This effort is to encourage companies in Indonesia to carry out carbon trading. Carbon emission gases from most people are still seen as a negative impact due to the social costs arising from the impact of climate change (Teixidó et al., 2019). Therefore, the carbon trading system is one of the systems used to reduce carbon emission gases (Zhang et al., 2020).

Not many companies have implemented carbon policies, which is one of the reasons why carbon policies do not affect the sustainability of a company's business. Carbon trading policy is something that is not yet mandatory for companies to implement, so the absence of a carbon trading policy does not affect the sustainability of a company (Qi et al., 2021). Which means that for now carbon trading has not become a factor in maintaining company stability. Companies that have not implemented a carbon policy can still maintain stability by implementing other references. This is also supported by the existing phenomenon, the development of carbon trading is still considered low. The low carbon transactions in carbon exchange trading cannot be separated from demand or requests that have not developed significantly. Carbon exchange trading transactions due to economic actors who reduce emissions are still focused on internal improvement efforts, such as: companies are still in the pre-process to implement carbon trading by conducting workshops, seminars and others. In addition, there are no strong rules for companies or business entities in the country to buy carbon units on the Indonesia Stock Exchange.

CONCLUSIONS

This study aims to test and analyze the impact of carbon emission disclosure and carbon trading on corporate sustainability. The results of this study are expected to provide an overview that carbon trading policies and carbon emission gas reporting will have a positive impact on financial performance and its influence on the sustainability of the company's business. The data used in this study were 130 manufacturing sectors. The results of this study show that carbon emission disclosure has an impact on the sustainability of a company's business. The company will strive to maintain the credibility of the company, not only financial factors are the company's goal, the company's credibility is the company's goal to maintain the sustainability of the company's activities (Gomez-Trujillo et al., 2020). The company will get a positive impact and higher profits if the company discloses more information related to carbon emissions to stakeholders (Li et al., 2020).

Meanwhile, carbon trading does not affect the sustainability of a company's business. Based on research data, only 25% of companies implement carbon trading policies, out of a total of 130 manufacturing companies that are the objects of the study. Carbon trading policies have not been widely implemented by companies in Indonesia, because companies in Indonesia are still in the process of preparing to implement carbon trading policies. This is also supported by several studies that reveal that the carbon trading policy scheme has not had a significant impact on reducing carbon emissions (Dong et al., 2019).

The limitations in this study are not all manufacturing companies disclose carbon emission gases, secondly data on companies implementing carbon policies are not specifically disclosed by the company. Third, the measurement of carbon emission gas disclosure in this study only applies content analysis, not other measurement media. This study uses content analysis using coding and obtains fairly reliable results, but there is still a possibility of high subjectivity in each coder. So suggestions for further researchers need supporting techniques for measuring carbon trading policies and carbon emission disclosures with broader interview techniques to confirm these findings.

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