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The Influence Of Industry Type, Growth , Profitability And Media Exposure On Carbon Emission Disclosure Of High Profile Industrial Companies On The Indonesian Stock Exchange

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Abstract –

Carbon emission disclosure refers to an important element of corporate social responsibility reporting that focuses on environmental issues. This information is usually included in additional reports published together with the Statement of Financial Accounting Standards (PSAK). This research aims to determine the influence of industry type, growth , profitability, and media exposure on the carbon emissions of high profile industrial companies' disclosures on the Indonesian stock exchange. This research is quantitative research with secondary data in the form of the company's annual financial report. The sample for this research was selected using a purposive sampling technique and sample data was obtained from 21 companies with a total sample of 105 samples. The data analysis technique uses multiple linear regression analysis with the SPSS 22 program. The results of this research show that industry type and profitability have a positive effect on carbon emission disclosure. Meanwhile, growth and media exposure have no effect on carbon emission disclosure.

Keywords – *industry type, growth, profitability, media exposure, carbon emission disclosure*

I. INTRODUCTION

Sustainable Development Goals are a global development agreement, namely a global action plan to end poverty, reduce inequality and protect the environment (SDGs, 2017). The environment is one of the main pillars in the SDGs which must be maintained consistently by companies, especially those whose operational activities are related to natural resources. The implementation of a sustainable environment is reflected in the sustainability report on environmental aspects. In accordance with Financial Services Authority Regulation (POJK) no. 51/POJK.03/2017, sustainability reports refer to documents that provide information regarding the environmental, social and economic performance of a company. Sustainability reports cover various topics, one of which is the environment. This section specifically focuses on metrics related to carbon emissions. These indicators must be disclosed or what is generally

known as carbon emission disclosure in the sustainability report, the main purpose of which is to present information to the public regarding the environmental sustainability of the company's operational activities.

Carbon emissions refer to the release of carbon (CO₂) into the atmosphere that occurs naturally and originates from human activities (EarthHero, 2017). Most human activities as well as high profile industrial companies use fossil fuels which will cause carbon emission levels to increase, then become a source of very dangerous energy, especially for the environment. Companies in Indonesia, especially those in high profile industries, really need energy to support their operational activities and this energy source is obtained from fossil fuels, which can certainly cause high levels of carbon emissions (Rosyid & Immawati, 2022).

The level of carbon emissions in Indonesia is increasing every year, and the largest contributor to greenhouse gas emissions comes from burning fossil fuels. The graph of Indonesia's annual CO₂ emissions can be shown in (figure I) that burning fuel is the primary factor that causes the majority of gas emissions, greenhouse gases (GHG), with carbon dioxide (CO₂) emissions being the most significant. Indonesia has experienced a marked increase in emissions since 1990, reaching peak emissions of 620 megatons of CO₂ in 2018. The largest contribution to overall energy production comes from the electricity generation sector, which accounts for around 35% of total emissions. Meanwhile, the transportation and industrial sectors occupy the next position with each contributing 27%, which can be caused by the high activity in the industrial sector in Indonesia and in this activity the burning of fossil fuels to produce business entity products results in large emissions. This is what made researchers choose companies in high profile industries to research regarding carbon emission disclosure, as contributors to fairly high emissions in Indonesia (Rini et al., 2021).



FIGURE I. CO₂ EMISSIONS FROM FUEL COMBUSTION

The high levels of emissions released by companies are not commensurate with the disclosures they make, as evidenced by the low level of carbon emission disclosures contained in sustainability reports. Every company that is related to natural resources, especially high profile industries, should be able to demonstrate its existence and become the company that prioritizes environmental sustainability, for example by carrying out carbon emission disclosure in the sustainability report in each reporting period (Rini et al., 2021).

To understand how companies respond to these environmental demands, several theoretical frameworks and financial factors need to be examined, beginning with a fundamental perspective on corporate accountability, operational characteristics, and market reactions.

Legitimacy Theory

Legitimacy theory is a theoretical framework that encourages companies to build and maintain recognition and acceptance from society. The main goal is to confirm its position as an entity that is recognized and accepted by society at large. According to legitimacy theory, legitimacy states that the relationship between a company and its operating environment is an interrelated social interaction. According to this theory, organizations will consistently try to ensure that their actions are in line with the norms and values recognized by society. They try to make stakeholders consider their activities legitimate and comply with the rules (Bahriansyah & Lestari Ginting, 2022).

Stakeholder Theory

Stakeholder theory reveals that companies bear responsibility not only to shareholders to maximize profits, but also to society, the social environment and the government, which are collectively known as stakeholders (Hanisyah & Sulfitri, 2023).

Carbon Emissions

Carbon emissions are the result of burning carbon in various forms and can come from industrial or natural sources. Industrial carbon emissions mainly come from human activities such as burning fossil fuels and deforestation (Cahya, 2018). Carbon emissions are the main cause of global climate change, which causes an increase in global average temperature and other environmental impacts (Evitasari et al., 2023).

Carbon Emission Disclosure

Carbon emission disclosure is part of carbon accounting, namely the obligation for companies to measure, acknowledge, record, present and disclose carbon emissions (Irwhantoko and Basuki, 2016). Accounting plays a role in increasing Indonesia's participation in achieving goals in the Sustainable Development Goals (SDGs), one of which is carrying out carbon emission disclosure as an accounting treatment in presenting carbon use in company activities through reports. Through carbon emission disclosure, it is hoped that companies will be able to prevent and reduce carbon emissions, stakeholders such as the government and society can monitor and regulate carbon emissions which have an impact on the company's environmental performance (Kholmi, Karsono and Syam, 2020).

However, carbon emission disclosure is still a voluntary disclosure for companies in Indonesia so that not all companies report it, especially companies that have close relationships with the environment and use a lot of natural resources (Amaliyah and Solikhah, 2019). The dependent variable, namely Carbon emission disclosure, research was measured using a checklist created by Choi et al. (2013) which includes several items in five categories related to climate change and carbon emissions (Mujiani, Juardi and Fauziah, 2019). These categories are mentioned in (table I). Carbon emission disclosure assessment is carried out by giving a score for each disclosure on the checklist, the minimum score is 0 and the maximum is 18. After being given a score, the total disclosure items are divided by 18 to give a carbon emission disclosure number.

TABLE I. CALCULATION OF CARBON DISCLOSURE (CED)

Criteria	Amount
Disclosure: Climate Change Risks and Opportunities	2
Greenhouse Gas Emissions (Ghg/Greenhouse Gas)"Greenhouse Gas Emissions (Ghg/Greenhouse Gas) Consumption"	7
Energy Consumption (Ec/Energy Consumption)	3
Greenhouse Gas Reduction And Cost (Rc/Reduction And Cost)	4
Accountability of Carbon Emissions (Aec/ Accountability of Emission Carbon)	2
Total	18

Industrial Type

The type of industry greatly influences the company's carbon emissions level. Companies in emission-intensive industrial sectors tend to produce more carbon emissions compared to companies in non-emission-intensive sectors (Cahya, 2018). The measurement of industry type uses a binary variable, where industries with high levels of carbon emissions are given a value of 1, while those with low levels of emissions are given a value of 0 (Rosyid & Immawati, 2022).

Growth

Growth is a ratio that shows the capacity of a business entity to protect its economic position during economic growth and the various business sectors it has. Growth is calculated using the difference in sales value in year x and sales in year x-1 divided by sales in year x-1 (Rini et al., 2021).

Profitability

Profitability refers to a company's ability to gain financial benefits. This is assessed through the use of ROA, which carries out a comparison of total profit before tax and total assets.

$$ROA = \frac{\text{laba bersih}}{\text{rata - rata total aset}}$$

Media Exposure

The media plays an important role in shaping public opinion and influencing stakeholders' perceptions of a company. Exposure to positive or negative media can affect a company's reputation and value (Widiastuti et al., 2018). Media exposure is measured using a binary variable, where a value of 1 indicates a company that provides greater disclosure of carbon emissions information on its website, while a value of 0 indicates a company that provides less disclosure of carbon emissions information on its website (Rosyid & Immawati, 2022).

Framework for Thought (figure II)

Influence Type Industry to Carbon Emissions Disclosure

Companies operating in industries with significant environmental impacts tend to provide more environmental information than industries with smaller impacts. Industrial sectors such as natural resources, steel processing, pulp and paper, energy and chemical production usually carry more significant environmental responsibilities (Brammer and Pavelin, 2018). Industries with high emissions are generally considered more closely by the government and are a sensitive issue in society (Choi et al, 2018). As a result, companies in this sector tend to make more environmental claims, including carbon emissions claims, in an effort to gain legitimacy and meet societal demands (Patten, 2022).

H1 : Industry type has an influence positive towards disclosure of carbon emissions.

The Effect of Growth on Carbon Emissions Disclosure

Companies that are growing will be conservative in using the resources they have, and will use focused resources to improve performance and develop the economic sector (Irwhantoko and Basuki, 2016). Long et al. (2015) explained that growing companies use a lot of natural resources, including energy sourced from coal and gas, which means that growing companies produce a lot of carbon emissions from their operational activities. Research by Irwhantoko & Basuki (2016) and Dwinanda & Kawedar (2019) shows that growth has no effect on carbon emission disclosure. However, research by Luo et al. (2013) stated that there is a significant negative impact of growth with carbon emission disclosure.

H2 : Growth has a negative influence on carbon emissions disclosure.

Influence Profitability to Carbon Emissions Disclosure

Choi et al. (2013) explained that a company's good financial condition means it is able to cover the financial and human resources needed to carry out voluntary disclosure and better disclosure on carbon emissions to deal with external pressures. Research by Hermawan et al. (2018) stated that profitability has a positive effect on carbon emission disclosure. However, research by Irwhantoko & Basuki (2016) and Kholmi et al. (2020) say otherwise.

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

Influence Media Exposure to Carbon Emissions Disclosure

Legitimacy theory generally examines the role of the media in increasing the pressure of public demands on companies. The media plays a vital role in mobilizing social movements, including environmental care groups (Priantinah, in Nuradan Patten, 2012). Information regarding company activities is also conveyed to the public through the important role of the media (Nur and Priantinah, 2012). Companies need to pay attention to the media that monitors their activities because it can affect the company's reputation and value (Nur and Priantinah, 2012).

H4 : Media exposure has a positive influence on disclosure of carbon emissions.

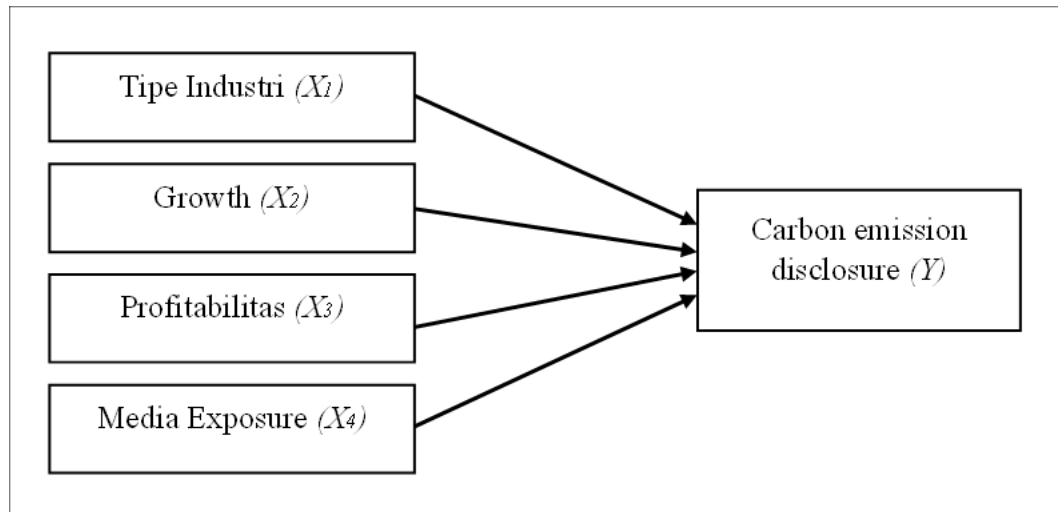


FIGURE II. CONCEPTUAL THINKING FRAMEWORK

II. METHOD

A method is a way of working that can be used to obtain something. Meanwhile, research methods can be interpreted as procedures for working in the research process, both in searching for data and disclosing existing phenomena (Zulkarnaen, W., et al., 2020).

Type Study

In this research, the method used to conduct research is a quantitative method. According to Sugiyono (2022) quantitative methods are methods for testing theories by examining the relationships between variables.

Population And Research Sample

The population of this research includes industrial companies in the energy sector that are listed on the Indonesia Stock Exchange (BEI) from 2019 to 2023. The population of this research is 83 companies. The sample for this research was obtained through a purposive sampling method, where sample selection was based on certain criteria. The companies that were the subject of this research were selected through purposive sampling, namely selecting companies based on certain criteria:

- 1) High profile energy sector companies listed on the IDX starting from the 2019-2023 period.
- 2) High profile industrial companies that consistently publish annual reports and sustainability reports during the 2019-2023 period.
- 3) Companies that disclose carbon emissions implicitly or explicitly (including at least one carbon/greenhouse gas emissions policy or disclosing at least one item of carbon information).

Of the 83 companies included in the high profile energy sector companies included in the 2019-2023 BEI list, there are 21 companies that have fulfilled the criteria that have been sampled using the purposive sampling method. Therefore, the total data for this research is 105.

Data Analysis Techniques

In writing this research, the multiple regression data analysis method was used regression) to carry out tests related to the influence of the independent variable on the dependent variable. The regression equation used is:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: Y = Carbon Emission Disclosure, α = Constant, $\beta_1 \beta_2 \beta_3 \beta_4$ = Regression Coefficients, X_1 = Industrial Type, X_2 = Growth, X_3 = Profitability, X_4 = Media Exposure, ε = Standard error

III. RESULTS AND DISCUSSION

In this study, descriptive statistics from 105 samples are shown in (table II), it is known that:

- 1) The results of the descriptive analysis of the Carbon Emission Disclosure (CED) variable show a minimum value of 0.11 at Buana Lintas Lautan Tbk (2019) and a maximum value of 0.89 at Indo Tambangraya Megah Tbk (2022) with an average of 0.3847 and a standard deviation of 0.17546.
- 2) The results of the descriptive analysis of the Industry Type (TI) variable show a minimum value of 0.00 and a maximum value of 1.00 with an average of 0.5238 and a standard deviation of 0.50183.
- 3) The results of the descriptive analysis of the Growth (GW) variable show a minimum value of -0.70 for Alfa Energi Investama Tbk (2022) and a maximum value of 1.75 for Dian Swaistika Sentosa Tbk (2022) with an average of 0.1474 and a standard deviation of 0.42144.
- 4) The results of the descriptive analysis of the Profitability (PS) variable show a minimum value of -0.38 at Buana Lintas Lautan Tbk (2021) and a maximum value of 0.62 at Golden Energy Mines Tbk (2022) with an average of 0.0588 and a standard deviation of 0.13991.
- 5) The results of the descriptive analysis of the Media Exposure (ME) variable show a minimum value of 0.00 and a maximum value of 1.00 with an average of 0.6667 and a standard deviation of 0.47367.

TABLE II. DESCRIPTIVE STATISTICAL TEST RESULTS

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
CED	105	.11	.89	.3847	.17546
IT	105	.00	1.00	.5238	.50183
GW	105	-.70	1.75	.1474	.42144
PS	105	-.38	.62	.0588	.13991
M.E	105	.00	1.00	.6667	.47367
Valid N (listwise)	105				

Classical Assumption Test

Normality Test

Determine whether the variables are normally distributed using the Kolmogorov-Smirnov (KS) technique and normal probability plot graphic analysis (Ghozali, 2021). Based on the tests in (table III), it shows that the data is normally distributed as evidenced by the significance value of $0.20 > 0.05$. Therefore, the research data is normally distributed, so the data can be used for testing with a multiple regression model.

TABLE III. NORMALITY TEST RESULTS

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residuals
N		105
Normal Parameters ^{a, b}	Mean	,0000000
	Std. Deviation	,13124107
Most Extreme Differences	Absolute	,067
	Positive	,067
	Negative	-,051
Statistical Tests		,067
Asymp. Sig. (2-tailed)		,200 ^{c, d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Multicollinearity Test

Assess whether there is a correlation between independent variables with Tolerance values > 0.10 and VIF < 10 (Ghozali, 2018). Based on (table IV) the tolerance and VIF values show that there is no tolerance value below 0.10, with a range between 0.756 to 0.988. Likewise, there are no VIF values above 10, with a range between 1.012 to 1.294, so it can be concluded that there is no multicollinearity problem.

TABLE IV. MULTICOLLINEARICITY TEST RESULTS

Coefficients ^a			
		Collinearity Statistics	
Model		Tolerance	VIF
1	IT	,988	1,012
	GW	,773	1,294
	PS	,756	1,322
	M.E	,974	1,027

a. Dependent Variable: CED

Heteroscedasticity Test

Assessing residual variations between observations with a pattern of points spread above and below the number 0 on the Y axis (Ghozali, 2021). It can be seen (table V) that the R Square value is 0.419 with $n = 105$ so $c_2 = n \times R^2 = 105 \times 0.419 = 43.995$. Meanwhile, c_2 tables with $df(nk) = 105 - 4 = 101$ with a sig value of 0.05, the value of c_2 tables is 125.458. So $c_2 \text{ count} < c_2 \text{ table}$, namely $43.995 < 125.458$ so it can be concluded that heteroscedasticity does not occur in the regression model.

TABLE V. HETEROSCEDASTICITY TEST RESULTS

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,647 ^a	,419	,343	,01659

a. Predictors: (Constant), x34, x11, x44, x22, x13, x33, x24, x12, x14, x23, GW, PS

Autocorrelation Test

Checking the correlation between confounding errors in period t and period $t-1$ using the Durbin Watson method (Ghozali, 2018). Based on the results of the autocorrelation test (table VI), the DW value is 2.012. This value is

compared with the table value using a significance value of 5% with a total N of 105 and a number of independent variables of 4 ($k=4$) with a du of 1.7617 with a value of 4- du is 2.2383. The results obtained were $1.7617 < 2.012 < 2.2383$, so it can be concluded that there was no autocorrelation in the regression model.

TABLE VI. AUTOCORRELATION TEST RESULTS

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,664 ^a	,441	,418	,13384	2,012

a. Predictors: (Constant), ME, TI, GW, PS

b. Dependent Variable: CED

Multiple Linear Regression Analysis

The multiple regression analysis method is used to test the influence of the independent variable on the dependent variable with the regression equation. Based on (table VII), it shows the results of multiple linear regression testing and is formulated in the following equation:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

$$Y = 0,233 + 0,204X_1 - 0,013X_2 + 0,340X_3 + 0,040X_4 + \epsilon$$

The statistical interpretation of writing in the regression equation model above can be explained as follows:

- 1) The constant value (α) is 0.233, meaning that if the variable value of industry type, growth, profitability and media exposure is equal to 0, then the value of the carbon emission disclosure variable is 0.233.
- 2) The regression coefficient value for industry type (X_1) is positive at 0.204, meaning that if the value for industry type (X_1) increases by one unit, then carbon emission disclosure (Y) will also increase by 0.204.
- 3) The growth regression coefficient (X_2) value is negative at -0.013, meaning that if the growth value (X_2) increases by one unit, the carbon emission disclosure (Y) will decrease by 0.013.
- 4) The profitability regression coefficient (X_3) has a positive value of 0.340, meaning that if the profitability value (X_3) increases by one unit, then carbon emission disclosure (Y) will also increase by 0.340.
- 5) The media exposure regression coefficient (X_4) value is positive at 0.040, meaning that if the media exposure value (X_4) increases by one unit, then carbon emission disclosure (Y) will also increase by 0.040.

TABLE VII. MULTIPLE LINEAR REGRESSION ANALYSIS TEST RESULTS

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,233	,027		8,538	,000
IT	,204	,026	,583	7,751	,000
GW	-,013	,035	-,032	-,374	,709
PS	,340	,108	,271	3,152	,002
M.E	,040	,028	,108	1,428	,156

a. Dependent Variable: CED

Hypothesis Testing

Model Feasibility Test (F Test)

According to Ghazali (2021), the F test is used to evaluate the overall suitability of the regression model. If the significance level of the F test is < 0.05 , the research model is considered feasible. Based on the results of the F test (table VIII), a significant value of 0.00 was obtained and the calculated F value was 19.685. $F_{table} = F(0.05; 4.100)$ which is 2.31,

so the sig value is $0.00 < 0.05$ and calculated F is $19.685 > F$ table 2.31. So the regression model in this research is suitable to be used to test hypotheses or in other words this research is suitable to be used to measure carbon emission disclosure.

TABLE VIII. F TEST RESULTS

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1,411	4	,353	19,685	,000 ^b
Residual	1,791	100	,018		
Total	3,202	104			

a. Dependent Variable: CED

b. Predictors: (Constant), ME, TI, GW, PS

Partial Significant Test (t Test)

TABLE IX. TEST RESULTS

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,233	,027		8,538	,000
IT	,204	,026	,583	7,751	,000
GW	-,013	,035	-,032	-,374	,709
PS	,340	,108	,271	3,152	,002
M.E	,040	,028	,108	1,428	,156

a. Dependent Variable: CED

The t test is used to measure the contribution of the independent variable to the dependent variable. The hypothesis is accepted if the p value < 0.05 (Ghozali, 2021). Based on (table 9) shows the results of the t table test calculated from the sig level $0.05/2 = 0.025$ and $df(n)-k-1$, $df(n)$ is the amount of data, k is the number of independent variables meaning $105-4-1 = 100$, so the t table value is $100 = 1.983972$. The t test results in this study are as follows:

1) Industry Type (X1)

The T test results show a sig value of 0.000 with a calculated t of 7.751, so the sig value is $0.000 < 0.05$ (α) with a calculated t value of $7.751 > t$ table 1.983972, so it can be concluded that the industry type variable has a positive effect on carbon emission disclosure.

H1 is accepted

2) Growth (X2)

The T test results show a sig value of 0.709 with a calculated t value of -0.374, so the sig value is $0.709 > 0.05$ (α) with a calculated t value of $-0.374 < t$ table 1.983972, so it can be concluded that the growth variable has no effect on carbon emission disclosure.

H2 is rejected

3) Profitability (X3)

The T test results show a sig value of 0.002 with a calculated t of 3.152, so the sig value is $0.002 < 0.05$ (α) with a calculated t value of $3.152 > t$ table 1.983972, so it can be concluded that the profitability variable has a positive effect on carbon emission disclosure.

H3 is accepted

4) Media Exposure (X4)

The T test results show a sig value of 0.156 with a calculated t of 1.428, so the sig value is $0.156 > 0.05 (\alpha)$ with a calculated t value of $1.438 < t \text{ table } 1.983972$, so it can be concluded that the media exposure variable has no effect on carbon emission disclosure.

H4 is rejected

Coefficient of Determination Test (R²)

According to Ghozali (2021:147) This test aims to determine the percentage capacity of the independent variable in describing the dependent variable. The percentage value it produces ranges from zero to one. The results in (table 10) show the coefficient of determination with an adjusted R square value of 0.418. This means that the independent variable influences the dependent variable by 41.8%, while the remaining 58.2% is explained by other variables not used in this research.

TABLE X. COEFFICIENT OF DETERMINATION TEST RESULTS

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,664 ^a	,441	,418	,13384

a. Predictors: (Constant), ME, TI, GW, PS

b. Dependent Variable: CED

Influence of Industry Type on Carbon Emission Disclosure

Based on the research results, it was concluded that industry type influences carbon emission disclosure. This is proven by the calculated t value of $7.751 > t \text{ table } 1.983972$ with a significance value of $0.000 < 0.05$ so that the hypothesis H1 is accepted. This means that research shows that the type of industry in high profile industrial companies listed on the IDX during the 2019-2023 period has a positive effect on carbon emission disclosure.

Companies operating in industries that have a large impact on the environment tend to carry out more comprehensive carbon emissions reporting. This is in line with Stakeholder theory, which emphasizes the importance of building good relationships with stakeholders. Transparent carbon emissions reporting shows the company's commitment to being responsible for its impact on the environment and society, thereby increasing trust and support from stakeholders (Rosyid & Immawati, 2022).

The Effect of Growth on Carbon Emission Disclosure

Based on the research results, it is concluded that growth does not affect carbon emission disclosure. This is proven by the calculated t value $-0.032 < t \text{ table } 1.983972$ with a significance value of $0.709 > 0.05$ so that the hypothesis H2 is rejected. This means that research shows that growth in high profile industrial companies listed on the IDX during the 2019-2023 period has no effect on carbon emission disclosure.

The findings of this research support legitimacy theory, in which companies attempt to demonstrate environmental responsibility to gain public acceptance. Companies tend to follow society's expectations by acting environmentally friendly. The impact of company operations on the environment, including global warming, goes beyond local boundaries (Rozaq, 2023).

The Effect of Profitability on Carbon Emission Disclosure

Based on the research results, it is concluded that profitability influences carbon emission disclosure. This is proven by the calculated t value of $3.152 > t \text{ table } 1.983972$ with a significance value of $0.002 < 0.05$ so that the hypothesis H3 is accepted. This means that research shows that profitability in high profile industrial companies listed on the IDX during the 2019-2023 period has a positive effect on carbon emission disclosure.

The findings of this research support legitimacy theory, where companies are encouraged to show concern for the environment in order to be accepted by society. Companies with high profits find it easier to meet these expectations because they have the resources to disclose environmental information, making it easier to gain public legitimacy. Profitability shows the company's ability to generate profits (Warsiaty et al., 2023).

The Effect of Media Exposure on Carbon Emission Disclosure

Based on the research results, it was concluded that media exposure did not affect carbon emission disclosure. This is proven by the calculated t value of $1.428 < t \text{ table } 1.983972$ with a significance value of $0.156 > 0.05$ so that hypothesis H4 is rejected. This means that research shows that media exposure to high profile industrial companies listed on the IDX during the 2019-2023 period has no effect on carbon emission disclosure.

The lack of influence of media exposure about company carbon emissions on the company's disclosure of carbon emissions information to stakeholders. This is because companies are not driven by media pressure or encouragement, but rather by the values adhered to by the company and in order to gain public legitimacy by showing concern for the environment (Laksani et al., 2021).

IV. CONCLUSIONS

Based on a study of leading industrial companies listed on the Indonesia Stock Exchange from 2019 to 2023, several conclusions can be drawn regarding carbon emissions disclosure. Industry type and profitability were found to have a positive effect on carbon emissions disclosure, while growth and media exposure did not show a significant effect. Furthermore, a simultaneous analysis shows that industry type, growth, profitability, and media exposure collectively explain 41.8% of the variation in carbon emissions disclosure, while the remaining 58.2% is explained by other variables not examined in this study.

Based on these findings, several recommendations can be made to various stakeholders. Companies – especially those that generate large amounts of carbon emissions – are advised to actively improve transparency regarding their carbon emissions. This is an important part of their environmental responsibility and supports government initiatives to address climate change. Although growth and media exposure did not show a significant influence in this study, companies with high growth and strong financial conditions are still encouraged to pay closer attention to environmental issues and begin transparently informing the public about their carbon footprints.

From a broader regulatory and market perspective, the government and the Ministry of Environment are urged to strengthen existing regulations through more robust legislation to ensure effective environmental management by companies operating in Indonesia. Therefore, investors should consider allocating their capital to large, profitable companies, as these entities tend to demonstrate greater transparency in information disclosure and a stronger commitment to mitigating environmental impacts. Finally, to gain deeper insights into this topic, future researchers are advised to extend the study's time frame and include additional independent variables beyond the scope of this study, such as firm size, environmental performance, and good corporate governance.

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