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THE INFLUENCE OF GROWTH, FIRM SIZE, AND PROFITABILITY ON CARBON EMISSION DISCLOSURE (EMPIRICAL STUDY OF INDUSTRIAL SECTOR MANUFACTURING COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE IN 2019 - 2022)

PENGARUH *GROWTH, FIRM SIZE,* DAN *PROFITABILITY* TERHADAP *CARBON EMISSION DISCLOSURE* (STUDI EMPIRIS PERUSAHAAN MANUFAKTUR SEKTOR INDUSTRI YANG TERDAFTAR DI BURSA EFEK INDONESIA TAHUN 2019 - 2022)

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ABSTRACT

This study aims to investigate and demonstrate how growth, firm size, and profitability influence the disclosure of carbon emissions among manufacturing companies in the industrial sector listed on the Indonesia Stock Exchange from 2019 to 2022. It employs a quantitative research approach, utilizing secondary data sourced from the annual reports and sustainability reports of these companies. The study's population comprises manufacturing companies in the industrial sector listed on the Indonesia Stock Exchange during the specified period. Purposive sampling was utilized to select a sample of 10 companies. The findings indicate that both growth and firm size have a significant impact on carbon emission disclosure, whereas profitability does not demonstrate a similar effect.
Keywords: *growth, firm size, profitability, carbon emission disclosure*

ABSTRAK

Penelitian ini bertujuan untuk menguji dan membuktikan pengaruh *growth*, *firm size*, dan *profitability* terhadap *carbon emission disclosure* pada perusahaan manufaktur sektor industri yang terdaftar di Bursa Efek Indonesia tahun 2019-2022. Jenis penelitian ini adalah peelitian kuantitatif dengan data sekunder yang diperoleh dari laporan tahunan maupun lapran keberlanjutan perusahaan manufaktur sektor industri yang terdaftar di Bursa Efek Indonesia tahun 2019-2022. Populasi dalam penelitian ini adalah perusahaan manufaktur sektor industri yang terdaftar di Bursa Efek Indonesia tahun 2019-2022. Teknik penelitian sampel yang digunakan yaitu *purposive sampling* dan diperoleh 10 perusahaan. Analisis data penelitian menggunakan regresi linear berganda dengan menggunakan SPSS versi 26. Hasil penelitian ini mendapati bahwa *growth* dan *firm size* berpengaruh terhadap *carbon emission disclosure* sedangkan *profitability* tidak berpengaruh terhadap *carbon emission disclosure*.
Kata Kunci: *growth*, *firm size*, *profitability, carbon emission disclosure*

INTRODUCTION

Indonesia has recently been hit with issues regarding climate change, which is one of the biggest environmental phenomena in recent years (Farida & Sofyani, 2019). The impact of climate change is the increase in temperature on earth globally or what is familiarly called global warming. According to (Intergovernmental Panel on Climate Change (IPCC), 2007 in Zanra et al., 2020), the normal worldwide surface temperature increments at a rate of 0.74°C ± 0.18°C which comes about in climate alter in different places counting Indonesia. Climate alter that happens is caused by outflows of gasses discharged into the climate from different human exercises on soil causing the nursery impact within the environment. Methane gas (CH4), carbon

dioxide (CO2), sulfur dioxide (SO2), nitrogen monoxide (NO), nitrogen dioxide (NO2), and chlorofluorocarbons (CFCs) are the nursery gasses. Carbon gas as the most poison is created from the combustion of fuel oil, coal and other natural powers.

Agreeing to the European Commission's Outflows Database for Worldwide Barometrical Inquire about (EDGAR), worldwide nursery gas emanations will reach 53.79 gigatons of carbon dioxide identical (Gt CO2e) in 2022. That figure is up 1.37% from the previous year (year-on-year/yoy) which amounted to 53.06 Gt CO2e. Indonesia ranks seventh largest in the world in 2022 by emitting 1.24 Gt CO2e. This figure increased from 2021 which amounted to 1.12 Gt CO2e.

Table 1. Top Ten Contributors to GHG Emissions 2022

No	Kontributor	Nilai / Gt CO2e
1.	Tiongkok	15,68
2.	Amerika Serikat	6,01
3.	India	3,94
4.	UE27	3,58
5.	Rusia	2,57
6.	Brazil	1,31
7.	Indonesia	1,24
8.	Jepang	1,18
9.	Iran	0,95
10.	Meksiko	0,81
11.	Arab Saudi	0,81

Source: www.datadoks.com

The human activity that contributes the most to greenhouse gas emissions is industrial activity (Hilmi et al., 2020). The US Department of Energy's Carbon dioxide information analysis center (CDIAC) in 2018 stated that carbon dioxide emissions have increased in the last 150 years as the industrial world began to grow. Although the manufacturing industry is not the largest contributor to global emissions, it still contributes 23% of global emissions. Based on the Greenhouse Gas (GHG) emission inventory of the Ministry of Energy and Mineral Resources (ESDM), the manufacturing and construction industries produced 137,040 Gigagram (Gg) CO2e emissions in 2019 (Nurdifa, 2023).

Table 2. Proportion of Carbon Emission Contribution by Sector

No	Sektor	Persen (%) dari total emisi
1.	Ketenagalistrikan	43%
2.	Transportasi	25%
3.	Industri	23%
4.	Bangunan	5%
5.	Energi Pribadi	3%
6.	Pertanian	1%

Source: www.datadoks.com

In 2015, a United Nations Climate Change Conference was held which resulted in the Paris climate agreement (Saraswati & Yuniarta, 2023). Agreeing to the official site of the Service of Environment and Ranger service in a 2016 press discharge, Indonesia is one of the nations that marked the Paris Climate Assention on climate alter at the High-Level Signature Ceremony for the Paris Assention which took put at the UN central command, Modern York, Joined together States, on April 22, 2016. Indonesia has committed to diminish nursery gas emanations by 29% on its possess and 41% through worldwide participation by 2030.

In expansion, Indonesia's commitment to decreasing carbon outflows can be seen from Presidential Declare No. 61/2011 on the National Activity Arrange for Diminishing Nursery Gas Outflows and Presidential Proclaim No. 71/2011 on the usage of the national nursery gas stock. Article 4 of Presidential Declare No. 61/2011 states that trade performing artists moreover take portion in endeavors to decrease GHG outflows. In any case, the move to low-carbon advancement is troublesome.

The Sustainable Development Goals (SDGs) is a global development agreement designed by the United Nations in 2015. The UN set 17 targets to be achieved by 2030. According to Wiratno & Muaziz, (2020), in order for SDGs to be achieved, the private sector must report SDGs in its company report and then the government provides encouragement so that the private sector actively participates in achieving SDG targets. In UN research, it is mentioned that not a few CEOs are aware that the company's commitment to SGDs will have a positive impact on their

company. Companies are also committed to preserving the environment by paying attention to the quality of carbon emissions, or other costs related to environmental sustainability. In Indonesia, there are still few companies that include disclosures related to emissions even though the Statement of Financial Accounting Standards (PSAK) 1 recommends disclosing responsibility for environmental and social issues.

Carbon emission disclosure (CED) or disclosure of carbon emissions by companies is a major concern (Firmansyah et al., 2021). This disclosure is an effort made to monitor greenhouse gas emissions. Not only does it reflect the company's social responsibility towards the environment, but it also provides important information to stakeholders regarding the environmental impact of business activities or a company. Carbon emission disclosure (CED) can be seen in the annual report or sustainability report.

A few analysts have conducted investigate on components that impact carbon outflow divulgence (CED), such as investigate by Ardita Widiyani (2022) supporting development as one of the variables that impact carbon emanation revelation. Investigate by Rini et al. (2021) underpins firm estimate as one of the components that impact carbon emanation divulgence. Almuaromah & Wahyono's investigate (2022) bolsters productivity as one of the variables that impact carbon outflow revelation. Based on the comes about of past thinks about, it can be concluded that there are a few things or factors that influence the level of carbon outflow divulgence in a company. A few of these factors incorporate development, firm estimate, and benefit.

Based on the portrayals and marvels depicted over, the creators need to conduct advance inquire about with the title “The Impact of Development, Firm Measure, and Productivity on Carbon Emanation Divulgence (Observational Think about of Mechanical Division Fabricating Companies Recorded on the Indonesia Stock Trade 2019 - 2022)”.

Legitimacy Theory

Concurring to Zanra et al. (2020), authenticity hypothesis could be a conceptual system that centers on the intelligent that exist between companies and society. This relationship is shaped through company compliance with different rules and policies set by the government as the most controller. Within the see of this hypothesis, the supportability of company operations isn't as it were seen from an financial point of see, but too as a frame of interdependency that requires agreement with social standards and requests.

The importance of legitimacy theory is manifested in the concept that corporate activities must be aligned with prevailing regulations and policies in order to gain public approval and support. More than just formal compliance, this theory embraces the idea that companies must also adapt to evolving social values and ensure that the sustainability of their business creates a positive impact on society.

Carbon Emission Disclosure

Carbon outflow divulgence is portion of carbon bookkeeping, which needs companies to degree, recognize, record, display and uncover carbon emanations (Rini et al., 2021).

Growth

Development is how distant the company is able to put itself within the generally financial framework or for the same mechanical framework (Hilmi et al., 2020). In this think about utilizing deals development estimation. Deals development reflects the victory of past period ventures and can be utilized as a expectation of future development. Deals development is an pointer of request and competitiveness of companies in an industry. Yuliani (2021) characterizes deals development as appearing the degree to

which the company can increment its deals compared to add up to deals as a entirety.

Firm Size

Puteri & Trisnaningsih, (2022) expressed that company estimate is the extent of one of them to guarantee the tall and moo of a company. The stature of the mechanical trade appears the capacity, level of involvement, and chance in overseeing ventures made by partners to development their thriving.

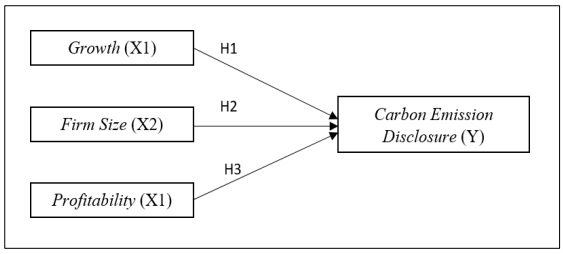
Profitability

Agreeing to Octaviani & Ratnawati (2021), Productivity could be a proportion that has the good thing about measuring the company's preparing control in producing benefits at a indicated time. Benefit is benefit appears the capacity of a company to create benefits amid a certain period.

FRAMEWORK AND HYPOTHESIS

The framework is a conceptual representation of the relationship between theory and various factors that have been identified as important problems (Sugiyono, 2019: 95). Based on the theoretical basis of each research variable, a framework diagram can be drawn as follows:

Picture 1. Conceptual Framework



Source: Processed by researchers (2024)

From the description above regarding the theoretical review and problem formulation, the framework above, the proposed hypothesis is as follows:

H1: Growth affects carbon emission disclosure

H2: Firm size affects carbon emission disclosure

H3: Profitability affects carbon emission disclosure

RESEARCH METHODS

Data Collection Technique

The sort of information utilized in this ponder is auxiliary information, to be specific yearly reports and supportability reports. The information collection strategy in this think about is documentation and writing think about. Documentation is done by collecting yearly reports or supportability reports of mechanical division fabricating companies for the period 2019 to 2022. Writing ponder is done by perusing, considering and analyzing the yearly report or maintainability report. The information source for this inquire about was gotten from the official site of the Indonesia Stock Trade (IDX) (www.idx.co.id) and the company's official site.

Operational Definition and Variable Measurement

The study's dependent variable is the disclosure of carbon emissions. Emissions of Carbon According to its definition, disclosure is a type of environmental corporate social responsibility that includes sharing data on a company's carbon emissions as well as goals and calculated actions to lower those emissions. The carbon emission disclosure index created by Choi et al. (2013) is applied in this investigation. For a total of eighteen things, each disclosed carbon emission item will receive a score of one, and if it does not disclose, it will receive a score of zero.

Sugiyono (2019) defines independent variables as attributes or elements that affect, contribute to, or result in the emergence of dependent variables. The operational table that follows serves as an indicator to quantify the research variables in this study:

Table 3. Operational Variables

No	Variabel	Proyeksi
1	*Growth*	$Sales\ growth = \frac{\text{Penjualan tahun ini} - \text{Penjualan tahun sebelumnya}}{\text{Penjualan tahun sebelumya}}$
2	*Firm Size*	*Firm Size* = Ln (Toal Aset)
3	*Profitability*	$\text{ROA} = \frac{\text{Laba Bersih}}{\text{Total Aktiva}}$
4	*Carbon Emission Disclosure*	$\text{CED} = \frac{\sum \text{di}}{\text{M}}$

Source: Processed by researchers (2024)

Sample Collection Technique

The 63 industrial sector manufacturing enterprises that were listed on the Indonesia Stock Exchange between 2019 and 2022 comprise the study's population. Purposive sampling is the method used in this study's sample collection to obtain up to 10 organizations that meet the sample criteria by adapting to certain criteria.

Table 4. Sample Selection

No.	Criteria	Total
1	Industrial manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the period 2019-2022. 2022	63
2	Industrial manufacturing companies that do not provide annual reports or sustainability reports in 2019-2022	(17)
3	Manufacturing companies that do not explicitly disclose carbon emissions (include at least one policy related to carbon/greenhouse gas emissions or disclose at least one carbon emission disclosure item)	(36)
Number of companies in the research sample		**10**
Total research data (2019-2022 = 4 years)		**40**

Source: Processed by researchers (2024)

Table 4 demonstrates that the sample was chosen using purposive sampling, yielding 10 firms for a 4-year observation period. As a result, there are 40 manufacturing companies in the industrial sector that make up the overall research data.

Data Analysis Technique

The following equation is used in this study's application of multiple linear regression analysis techniques:

$Y = a + \beta\_1X1 + \beta\_2X2 + \beta\_3X3 + e$

Description:

Y = Carbon emission disclosure

A = Constant

β_1, β_2, β_3 = Regression coefficient

X1 = Sales growth

X2 = Firm size

X3 = Profitability

RESULTS AND DISCUSSIONS

Descriptive Statistical Analysis

In order to give a summary of the data, this descriptive statistic examines the minimum, maximum, average, and standard deviation values while testing the study item using sample data. This study examines and validates the impact of firm size, profitability, and growth on the disclosure of carbon emissions. The following is how Table 5 displays the findings of the descriptive statistical analysis:

Table 5. Descriptive Statistics Test Results

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Growth	40	-.563	.556	.04415	.250528
Firm Size	40	27.197	33.655	29.28623	1.952134
Profitability	40	-.401	1.637	.08557	.269322
CED	40	.333	.722	.52215	.148396
Valid N (listwise)	40				

Source: Processed by researchers (2024)

Table 5 indicates that the Carbon Emission Disclosure (CED) variable has an average of 0.522, with a standard deviation of 0.148. The minimum value is 0.333, and the maximum is 0.722. The growth variable has an average of 0.441 and a standard deviation of 0.250, with a minimum of -0.563 and a maximum of 0.556. The firm size variable shows an average of 29.286 and a standard deviation of 1.952, with values ranging from 27.197 to 33.655. Lastly, the profitability variable has an average of 0.085, a standard deviation of 0.269, a minimum value of -0.401, and a maximum value of 1.637.

Normality Test

The purpose of the normality test is to determine if the dependent and independent variables in a regression model have an abnormal or normal distribution.

Table 6. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		40
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.11156963
Most Extreme Differences	Absolute	.112
	Positive	.091
	Negative	-.112
Test Statistic		.112
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.		

Source: Processed by researchers (2024)

Table 6 demonstrates that the study's significance value, which is 0.200 and greater than 0.05, indicates that the study's variables are normally distributed.

Classical Assumption Test

Multicollinearity Test

To find out if the regression model shows a correlation between independent variables or between independent variables, the multicollinearity test is used. A variable is considered multicollinear if its tolerance value is less than 0.10 or its variance inflation factor (VIF) value is greater than 10. These findings serve as the foundation for the multicollinearity test decision-making process. On the other hand, a variable lacks multicollinearity if the tolerance value is greater than 0.10 or the VIF value is less than 10. (Ghozali, 2021).

Table 7. Multicollinearity Test Results

Coefficients[a]			
Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Growth	.826	1.210
	Firm Size	.977	1.024
	Profitabilitas	.821	1.218
a. Dependent Variable: CED			

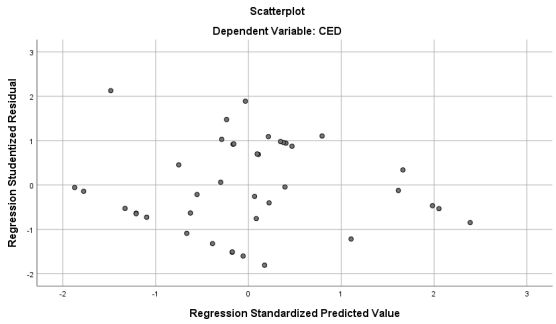
Source: Processed by researchers (2024)

Table 7 demonstrates that every variable yields a Variance Inflation Factor (VIF) of less than 10 and a tolerance value greater than 0.10. This indicates that the variables in this study do not exhibit multicollinearity.

Heteroscedasticity Test

The heteroscedasticity test is utilized to decide whether any factors within the relapse show are not constant or whether there's an disparity of fluctuation from the residuals. If there is homoscedasticity, or the fixed residual variable from one observation to the next, or if there is no heteroscedasticity, the regression model is considered acceptable. Examining the scatterplot graph pattern allows one to do the heteroscedasticity test. Heteroscedasticity has happened if the scatterplot graph exhibits a certain pattern, such as dots that clearly form a pattern above and below the number 0 on the Y axis (Ghozali, 2021). An image of the plot graph used in this study is shown below:

Picture 2. Heterskedasticity Test Results



Source: Processed by researchers (2024)

The scatterplot of this study, as shown in Figure 2, shows that the points are evenly distributed above and below the number 0 on the Y axis, spread widely throughout each region, do not form a particular pattern, and do not collect at one point. This indicates that there is no heteroscedasticity in this study, indicating that the regression model is good.

Autocorrelation Test

To determine whether confounding errors in periods t and t-1 in the regression model are correlated, the autocorrelation test is utilized. Research data collected sequentially over a given length of time gives rise to autocorrelation. Consequently, the Durbin Watson test can be used to ascertain whether autocorrelation is present (Ghozali, 2021).

Table 8. Autocorrelation Test Results

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.659[a]	.435	.388	.116125	1.751
a. Predictors: (Constant), Profitabilitas, Firm Size, Growth					
b. Dependent Variable: CED					

Source: Processed by researchers (2024)

Table 8 indicates that the value of Durbin-Watson (DW) is 1.751. In this study, there are 40 data points (n) and 3 independent variables (k), based on these numbers. The value of 4 - dU is 2.341 and the dU value at n = 60 and k = 3 is 1.658 if compared to the Durbin Watson table. There is no autocorrelation in this study if 1.658 < 1.751 < 2.341 is taken into consideration while making decisions.

Multiple Linear Regression Analysis

Numerous straight relapse examination is valuable for testing the impact of two or more free factors on one subordinate variable (Ghozali, 2021). In this ponder, the comes about of different straight relapse tests are as takes after:

Table 9. Multiple Linear Regression Test Results

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.348	.282		-1.234	.225		
	Growth	.267	.082	.451	3.273	.002	.826	1.210
	Firm Size	.029	.010	.384	3.028	.005	.977	1.024
	Profitabilitas	.044	.076	.080	.577	.568	.821	1.218
a. Dependent Variable: CED								

Source: Processed by researchers (2024)

Based on the test results in table 8, it can be seen that the regression equation model in this study is as follows:

$Y= \alpha + \beta\_1 X\_1+\beta\_2 X\_2+\beta\_3 X\_3+e$

Y=0,348+0,267X_1+0,029X_2+0,44X_3+ e

Hypothesis Test

Model Fit Test (F Test)

The model fit test (F test), according to Ghozali (2021), is a statistical testing technique that is helpful in figuring out the impact of all independent variables either alone or in combination on the dependent variable. It is deemed significant if the significance value is less than 0.05.

Table 10. Model fit test results (F test)

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.373	3	.124	9.229	.000[b]
	Residual	.485	36	.013		
	Total	.859	39			
a. Dependent Variable: CED						
b. Predictors: (Constant), Profitabilitas, Firm Size, Growth						

Source: Processed by researchers (2024)

Table 10 indicates that the F test's significant value is 0.000. The Ftabel value for this study is 3.259 based on n = 40 and k = 3, which correspond to the number of data (n) and independent variables (k) in the study. It can be concluded that the independent variables in this study have an impact on the dependent variable at the same time because the significance value indicates a value of 0.000 less than 0.05 and an Fcount of 9.229 greater than Ftable, which is 3.259.

Test Coefficient of Determination (R2 Test)

The purpose of the Coefficient of Determination test is to quantify the extent to which the independent variable model can account for variations in the dependent variable. The results of this test show the proportion of the independent variables' combined influence on the dependent variable. A substantial correlation exists between the independent and dependent variables, or vice versa, when the R2 coefficient value is more than 0.5 (Ghozali, 2021).

Table 11. Test Results of the Coefficient of Determination (R2)

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.659[a]	.435	.388	.116125
a. Predictors: (Constant), Profitabilitas, Firm Size, Growth				
b. Dependent Variable: CED				

Source: Processed by researchers (2024)

Table 11 demonstrates that the study's R2 (R Square) value is 0.435 less than 0.500, indicating that the independent variable and the dependent variable do not have a strong relationship. Additionally, only 0.435, or 43%, of the influence of firm size, profitability, and growth variables on

carbon emission disclosure (CED) is attributable to these factors; the remaining 86% of CED is subject to other variables.

Partial Test (T Test)

To ascertain if independent variables have a separate or partial impact on the dependent variable, a partial test or individual parameter significant test is performed.

Table 12. Partial Test Results (T Test)

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.348	.282		-1.234	.225		
	Growth	.267	.082	.451	3.273	.002	.826	1.210
	Firm Size	.029	.010	.384	3.028	.005	.977	1.024
	Profitabilitas	.044	.076	.080	.577	.568	.821	1.218

a. Dependent Variable: CED

Source: Processed by researchers (2024)

Table 12 indicates that there are 40 data points (n) and 3 independent variables (k) in this investigation. The study's table has a significance value of 0.050 and is located at 2.028. In this manner, H3 is rejected and H1 and H2 are accepted.

Growth Affects Carbon Emission Disclosure

The first hypothesis (H1) claims that disclosure of carbon emissions is impacted by growth. The relevance value of the growth variable in influencing carbon emission disclosure with the value of the criteria set at 0.050 is based on study findings. The derived growth variable has a significance value of 0.002. The first hypothesis (H1) is supported based on these data, which show that the growth's significance value is less than 0.050. It can be inferred that the growth variable influences the disclosure of carbon emissions. Put another way, manufacturing enterprises in the industrial sector that are listed on the Indonesia Stock Exchange (IDX) between 2019 and 2022 will disclose more carbon emissions when they see growth in their business.

According to legitimacy theory, a business's actions need to comply with relevant laws and guidelines in order to win the support and acceptance of the public. Saraswati & Yuniarta (2023) state that businesses that grow, particularly in terms of output, typically utilize more energy and resources, which can lead to a rise in carbon emissions. The study's findings are consistent with earlier studies, particularly that of Ardita Widiyani and Neni Meidawati (2022), which found that growth had an impact on the disclosure of carbon emissions. It contradicts, however, the findings of a study published in 2021 by Muhammad Muslih, Febrial Pratama, and Eksi Puspita Rini, which found no relationship between growth and carbon emission disclosure.

Firm Size Affects Carbon Emission Disclosure

According to the second hypothesis (H2), firm size has an impact on disclosure of carbon emissions. The relevance value of the business size variable in impacting carbon emission disclosure with the value of the criteria set at 0.050 is based on study findings. The derived growth variable has a significance value of 0.005. The second hypothesis (H2) is supported based on these data, which show that the significance value of company size is less than 0.050. We may conclude that disclosure of carbon emissions is influenced by the firm size variable. This implies that the growth in carbon emission disclosure will be influenced by the proportion of a company's size that is held by manufacturing companies in the industrial sector that are listed on the Indonesia Stock Exchange (IDX) between 2019 and 2022.

According to legitimacy theory, a business's operations must comply with all relevant laws and policies in order to win the support and acceptance of the general public. Large businesses typically face more pressure or demands to implement transparent carbon emission disclosure from a variety of sources, including investors, consumers, and legislation (Wiratno & Muaziz, 2020). Because larger organizations are more likely to face pressure from stakeholders, customers, and

other parties, they can dedicate more funds and labor, which will further boost carbon emission disclosure. This is because larger companies have more financial and human resources. The findings of this study corroborate those of earlier studies that found a relationship between firm size and carbon emission disclosure, including those by Eksi Puspita Rini, Febrial Pratama, and Muhammad Muslih (2021), Putu Pande R. Aprilyani Dewi and Putu Ayu Anggya Agustina (2023), and Aulia Nastiti and Pancawati Hardiningsih (2022). It does not, however, corroborate a study by Adi Wiratno and Fatkhudin Muaziz (2020) that claims firm size has no effect at all on carbon emission disclosure.

Profitability Has No Effect on Carbon Emission Disclosure

According to the third hypothesis (H3), disclosure of carbon emissions is influenced by profitability. The profitability variable's significance value in affecting carbon emission disclosure is based on study findings, and the criteria value is set at 0.050. The profitability variable generated has a significance value of 0.568. According to these findings, profitability has a significance value larger than 0.050, indicating the rejection of the third hypothesis (H3). We conclude that there is no relationship between the profitability variable and the disclosure of carbon emissions. This demonstrates that, even with the potential to make large profits, manufacturing companies in the industrial sector listed on the Indonesia Stock Exchange (IDX) between 2019 and 2022 will not be impacted by the rise in carbon emission disclosure.

According to legitimacy theory, a firm can only get public support and acceptance for its operations if its operations comply with relevant laws and policies. In spite of their great profitability, some businesses do not disclose carbon emissions in their reports because, according to Wiratno & Muaziz (2020), they do not understand the significance of doing so. A corporation is not prepared to reveal its emissions because it is not profitable. Government regulations requiring companies to record carbon emissions in their reports are only one example of the additional factors that must be present for a corporation to feel obligated to do so. According to Rini et al. (2021), businesses that experience low profitability feel compelled to disclose their carbon emissions in order to gain public credibility and demonstrate that their low profitability is a result of their involvement in environmental initiatives. Because they still do not understand the significance of carbon emission disclosure, profitable enterprises are unlikely to disclose their carbon emissions more often as a sustainable business practice. The study's findings are consistent with earlier research, including that of Ardita Widiyani and Neni Meidawati (2022) as well as Muhammad Muslih (2021), Eksi Puspita Rini, and Febrial Pratama (2021), who expressed disappointment with the study's findings.

CONCLUSION AND SUGGESTION

The following conclusions may be drawn from the analysis that was performed for this study:

1. From 2019 to 2022, industrial sector manufacturing enterprises listed on the Indonesia Stock Exchange (IDX) will disclose their carbon emissions in proportion to their growth. The company's growth will have an impact on the disclosure of carbon emissions.
2. In the industrial sector manufacturing enterprises listed on the Indonesia Stock Exchange (IDX) know 2019–2022, firm size influences carbon emission disclosure. The disclosure of carbon emissions will be impacted by a company's size or scope.
3. In industrial sector manufacturing enterprises listed

on the Indonesia Stock Exchange (IDX) 2019–2022, profitability has no bearing on carbon emission declaration. High profit margins won't have an impact on a company's disclosure of carbon emissions.

It is hoped that additional research will include variables that have a strong relationship with the variables in this study, additional samples, and a longer research period based on the analysis and conclusions that have been presented. Additionally, since some of the variables have insignificant results in this study, it is hoped that additional research will use different indicators or measurement methods from these variables in order to improve the research results that have been obtained.

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