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The Influence of *Media Exposure*, Company Size, and Profitability on Carbon Emission Disclosure in Basic *Materials Companies* in Indonesia

Bela Fadhilah Harahap[1]* Muslim Ansori[2]* Himawan Mochtoha[3#]

Batam State Polytechnic
*Managerial Accounting Study Program
[#]Applied Business Administration Program
E-mail: [1]belafadhilah02@gmail.com, [2]muslim@polibatam.ac.id, [3]himawan@polibatam.ac.id

Keywords: Carbon Emission Disclosure, *Media Exposure*, Company Size, Profitability

Abstract

The acceleration of global warming caused by carbon emissions continues to be a pressing worldwide concern. Disclosing carbon emissions is a measure companies can adopt to tackle environmental and social issues. In Indonesia, the extent of carbon emission disclosure remains comparatively modest, as it is conducted primarily on an initiative basis. This research primarily aims to ascertain the partial impact of media exposure, company size, and profitability on carbon emission disclosure. The research sample was obtained through purposive sampling, comprising 63 samples from basic materials businesses listed on the Indonesia Stock Exchange for the period of 2021-2023. The multi-linear regression model of analysis used in this research was performed in SPSS 20 using the SPSS 20 measurement tool. The research indicates that media exposure, organizational scale, and profitability influence carbon emission disclosure.

Keywords: Carbon Emission Disclosure, Media Exposure, Company Size, Profitability

1. Introduction

The rise in the worldwide average surface temperature in 2023 signifies the persistent effects of climate change, which progressively jeopardizes the stability of Earth's ecosystems. A report from the World Meteorological Organization (WMO) indicates that in 2023, the global average surface temperature will attain 1.45 ± 0.12°C over pre-industrial values from 1850 to 1900. This period represents the ten hottest years ever documented, with 2020 recording a temperature of 1.27 ± 0.13°C and 2016 at 1.29 ± 0.12°C (Clare, 2024). A contributing element to increasing global temperatures is carbon dioxide. Carbon dioxide emissions significantly contribute to global climate change. According to Our World in Data, prior to the Industrial Revolution, the increase in emissions was very gradual. Since 1950, emissions have escalated significantly, projected to attain 37.29 billion tons in 2022. The subsequent statistics pertains to worldwide emissions rise from 1750 to 2022:

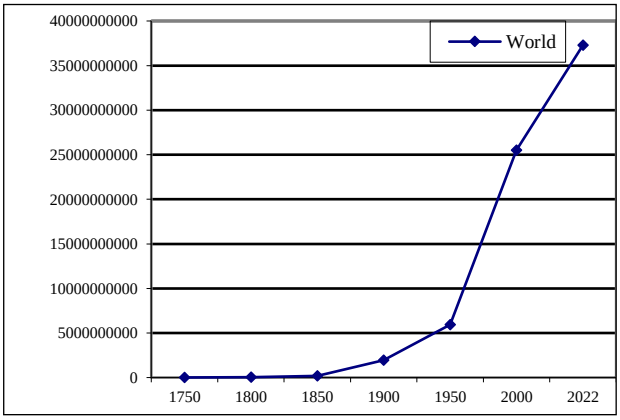

Figure 1: Global Carbon Emissions Graph

Source: Our World in Data (2024)

The acceleration of global warming driven by carbon emissions remains the world's latest global issue. What is more, carbon emissions are set to reach a record high in 2024. Based on the Global Carbon Budget Report (2024), carbon emissions in 2024 will reach 41.6 billion tons, up from 40.6 billion tons in 2023 (Welle, 2024).

The Global Carbon Project research indicates that Indonesia ranks in the top 10 countries for carbon emissions worldwide. In 2022, Indonesia had an 18.3% rise in emissions relative to the prior year, the highest among nations (Annur, 2023). BPS statistics indicate that Indonesian industries released 887.23 million tons of carbon dioxide equivalent (CO2e) in 2022. The processing industry exhibited the highest sectoral contribution to greenhouse gas emissions throughout the specified timeframe (Ahdiat, 2024). According to Anders Maltesen, President of Energy Industries Asia at ABB, approximately 70 percent of Indonesia's total CO2 emissions originate from four primary sectors: the iron and steel industry, cement, chemicals, and petrochemicals. The four sectors utilize fossil fuels that contribute to carbon dioxide (CO2) emissions (Itsnaini & Alexander, 2024). The basic materials sector comprises the industrial sectors whose products and services serve as raw materials for other industries in the production of finished goods. This includes companies that manufacture chemicals, non-energy metals and mineral commodities, building materials, packaging products, and processed wood and paper (Nurhaliza, 2022). Given the substantial carbon footprint of the industry, prioritizing emission reductions is essential to align with nations' commitments to the Paris Agreement.

The Paris Agreement, established in 2015, is an international accord aimed at combating climate change by enhancing global initiatives to maintain the Earth's temperature below 2°C, with a principal objective of restricting the temperature rise to 1.5°C (Iradat, 2023). Indonesia ratified the 2015 Paris Agreement by Law Number 16 of 2016. Indonesia endeavors to mitigate greenhouse gas emissions under Presidential Regulation Number 61 of 2011, which pertains to the National Action Plan for Greenhouse Gas Emission Reduction (RAN-GHG), and Presidential Regulation Number 71 of 2011 (Iqbal, 2023). Additional regulations pertaining to environmental responsibility and stewardship include the Kyoto Protocol. The Kyoto Protocol is a 1997 international accord designed to encourage industrialized nations that have not implemented substantial measures to mitigate their carbon emissions (Gendre, 2023). According to the stipulated regulations, the Company is evidently implicated, as its operational actions substantially influence global warming. Consequently, companies ought to document and publish information while strategizing to mitigate carbon emissions.

The challenge of mitigating carbon emissions has garnered interest from various fields, including management accounting. Management accounting serves a strategic function inside the Company by providing managerial support in the stewardship of economic and business resources for stakeholders (Ratmono et al., 2021). The involvement of entities in reporting their carbon emissions is anticipated to assist the government in regulating them. Companies can prepare a carbon emissions disclosure report. This information is included in the Company's annual report or sustainability reporting document. The extent of emission reporting by entities in Indonesia is limited due to the voluntary nature of disclosure (Setiany et al., 2022). Corporate requirements within government rules do not serve as an unequivocal benchmark for promoting the disclosure of environmental responsibility, particularly with the reporting of carbon emissions by corporations (Pratiwi et al., 2021). The statement indicates that other reasons, in addition to governmental restrictions, compel corporations to reveal carbon emissions data.

One of these aspects is media coverage. The media is pivotal in the social mobilization movement and in disseminating information regarding the Company's efforts to the public (London, 2023). The media's vigilant oversight of the environment will drive corporations to reveal their operations in order to elicit favorable reactions from the community and stakeholders (Hidayat et al., 2022). The size of the

company is another element that can influence the impact of disclosing carbon emissions. Large-scale firms typically possess more resources and engage in larger operational activities (Ratmono et al., 2021), resulting in heightened pressure and oversight, which incentivizes them to report their carbon emissions more than smaller companies (Pratiwi et al., 2021). Moreover, profitability may influence the transparency of carbon emissions reporting. Entities with substantial profits are expected to assume greater responsibility, as they are perceived to possess the capacity to enact legislation aimed at reducing carbon emissions (Ratmono et al., 2021). The aforementioned criteria are intricately linked to the notions of legitimacy and stakeholder theory. The Company seeks to attain public legitimacy and cultivate a favorable image by enhancing perceived value among the public and stakeholders through clear carbon-emission data that demonstrates its dedication to social and environmental concerns.

The researcher will investigate the factors that motivate corporations to share carbon emissions data. This study expands upon Asmeri et al. (2023) by re-evaluating the impact of media exposure and profitability on the extent of carbon emissions disclosure. The development involves the selection of an alternative independent variable, specifically the company size variable, as demonstrated in the study by Pratiwi et al. (2021). Development is conducted utilizing the population inside industrial classifications, fundamental materials, and firms listed on the Indonesia Stock Exchange, encompassing the period from 2021 to 2023. The studies completed by Asmeri et al. (2023) and Pratiwi et al. (2021) reveal a research deficit relative to prior investigations. The findings of the study continue to exhibit contradictions. Asmeri et al. (2023) and Krisnawanto & Solikhah (2019) concluded in their research that media exposure had no impact on the disclosure of carbon emissions. Conversely, studies conducted by Haura & Yuliandhari (2024), Syahdanti & Marietza (2024), and Hidayat et al. (2022) indicate that media exposure influences carbon emissions disclosure procedures.

The research conducted by Pratiwi et al. (2021), Setiany et al. (2022), and Ratmono et al. (2021) revealed that the variable of company size affects the extent of carbon emissions reporting. Simultaneously, research conducted by Kholmi et al. (2020), Krisnawanto & Solikhah (2019), and Irwhantoko & Basuki (2016) reveals that company size does not influence carbon emissions disclosure. Furthermore, the research conducted by Asmeri et al. (2023), Hidayat et al. (2022), Setiany et al. (2022), and Kholmi et al. (2020) indicates that profitability does not influence the degree of carbon emissions openness. In the research conducted by Pratiwi et al. (2021), Syahdanti & Marietza (2024), Ratmono et al. (2021), and Saraswati et al. (2021), it was determined that profitability influences the transparency of carbon emission data.

This study aimed to examine the partial effects of media exposure, company size, and profitability on carbon emission disclosure in basic materials firms. This research contributes to the advancement of scientific principles, encompassing theoretical foundations and practical applications. From a theoretical standpoint, it can act as a benchmark for formulating and assessing accounting and reporting standards pertaining to the Company's social responsibility and environmental issues. This research is beneficial for investors seeking information to inform investment decisions, particularly with companies committed to transparency and carbon emissions management. This research can assist companies in formulating a more transparent and sustainable carbon-emission disclosure strategy. Furthermore, authorities can utilize the insights from this research to formulate more efficacious regulations and policies that direct corporations in their emission disclosures, so aiding in the management of carbon emissions.

2. Literature Review

Legitimacy Theory

The theory of legitimacy was first put forward by Dowling & Pfeffer (1975), which states that its operational achievements or internal performance do

not solely determine the sustainability and success of a company, but also highly depend on the Company's ability to build, maintain, and strengthen acceptance and support from the public. When a disagreement arises between the Company and the community over the values they believe in (a legitimacy gap), the Company's legitimacy can be threatened. This can affect the Company's ability to continue its business activities properly. The main threat is that people can withdraw their social support when they feel dissatisfied with the Company's activities (Irwhantoko & Basuki, 2016). Transparency in the environmental aspect is a form of corporate social responsibility to gain recognition and acceptance from the public in its operational area, as well as an effort to optimize the Company's financial assets in the long term (Iswati & Setiawan, 2020).

Stakeholder Theory

The stakeholder theory, created by Freeman (1984), underscores the connection between business entities and interested parties, encompassing both those who exert influence and those impacted by the company's operational operations, strategic goals, and policies. The Theory of Stakeholders posits that a company must prioritize not only profit generation but also the enhancement of benefits for its stakeholders (Monica et al., 2021). In response to stakeholder demand, firms typically implement environmentally sustainable practices and disseminate information about them through many channels. A method of this communication is the reporting of carbon emissions, enabling corporations to exhibit their commitment to and accountability towards stakeholders (Iswati & Setiawan, 2020).

The Effect of Media Exposure on Carbon Emission Disclosure

The media plays a crucial role in disseminating transparent news to the general population. The prevalence of environmental news in the media enhances awareness of environmental issues among interested parties, prompting them to take action (Asmeri et al., 2023). Increased media scrutiny of the environment prompts corporations to reveal their operations (Hidayat et al., 2022). This pertains to legitimacy theory and stakeholder theory, as revealing its emissions will enhance the Company's reputation and value in the perception of the public and stakeholders. Media exposure can influence the transparency of a company's carbon emissions statistics. This aligns with the findings of Haura & Yuliandhari (2024), Syahdanti & Marietza (2024), Setiany et al. (2022), and Hidayat et al. (2022), which demonstrate that media exposure affects carbon emission reporting. Consequently, the initial hypothesis suggested is:

H1: *Media exposure is thought to have a positive and significant effect on carbon emissions disclosure*.

The Effect of Company Size on Carbon Emission Disclosure

Large-scale entities are usually under stricter public and media scrutiny, and people have higher expectations of large companies, especially related to environmental responsibility. According to Hermawan et al. (2018), large entities face a more intense spotlight on environmental issues, making companies more responsive to them. Thus, companies will be more transparent in disclosing their carbon emissions. This is closely related to the theory of legitimacy because companies seek to meet public demands and pressures, reflecting their commitment to social issues and environmental sustainability. Based on the previous explanation, it is concluded that the Company's size can affect the scale of its carbon emission reporting. This is in line with the research of Pratiwi et al. (2021), Setiany et al. (2022), Ratmono et al. (2021), and Hermawan et al. (2018), which found that the Company's scale impacted carbon emissions reporting. Thus, the second hypothesis is stated as follows:

H2: *Company Size is thought to have a positive and significant effect on Carbon Emission Disclosure.*

The Effect of Profitability on Carbon Emission Disclosure

Profitability serves as a key indicator of a company's financial success. Entities exhibiting elevated

profitability are deemed more capable of funding their emissions mitigation and reporting efforts (Widyastuti et al., 2023). This pertains to the principle of legitimacy, as public social pressure is exerted on highly profitable corporations, which are deemed more competent in executing their carbon-emission disclosure policies. The principle of stakeholder engagement is relevant here, as stakeholders are generally more supportive of organizations that exhibit a long-term commitment to sustainability, which can be accomplished through transparent carbon emissions reporting. Profitability can influence firms' behavior about carbon footprint data. The research conducted by Pratiwi et al. (2021), Syahdanti & Marietza (2024), Saraswati et al. (2021), and Faisal et al. (2018) substantiates that profitability influences the disclosure of carbon emission information. The researcher presented a third theory, specifically:

H3: *Profitability is thought to have a positive and significant effect on Carbon Emission Disclosure*.

Referring to the previous description, the variables in this research are described in the research model below:

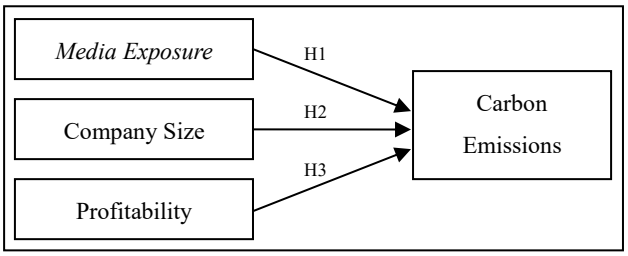

Figure 2: Research Model

Source: Data Processed by Researchers (2024)

3. Research Methods

This research applies a quantitative method because it uses variables that are numerically stated and objective. The analytical instrument applied is SPSS *Statistics* 20. The research population was taken from basic material sector corporations that are part of the Indonesia Stock Exchange for the period 2021 to 2023.

Variable Operations and Their Measurement

Carbon Emissions Disclosure

Carbon emission disclosure refers to the extent to which a firm conveys information regarding its environmental accountability for carbon emissions (Krisnawanto & Solikhah, 2019). The variables are assessed using an 18-item checklist derived from the research of Saraswati et al. (2021). This is a list of verification criteria for carbon emission disclosure:

TABLE I

CARBON EMISSIONS DISCLOSURE *CHECKLIST* ITEM

Category	Item
Climate Change: Risks and Opportunities (*CC/Climate Change*)	CC-1: Risk assessment/elaboration (special and general regulations) related to climate change and its management efforts.
	CC-2: Assessment/description of the financial, business, and opportunity impacts posed by current and future climate change.
Greenhouse Gas Emissions (*GHG/Greenhouse Gas*)	GHG-1: GHG emission calculation methodology (e.g.: GHG Protocol, ISO).
	GHG-2: There is external verification of the amount of GHG emissions from whom and on what basis.
	GHG-3: Total GHG emissions produced (in metric tons of CO_2-e).
	GHG-4: Direct GHG emissions disclosure based on scopes 1 and 2, or 3.
	GHG-5: Disclosure of GHG emissions by source (e.g., electricity, coal, and others).
	GHG-6: Disclosure of GHG emissions according to the company's facilities or segments.
	GHG-7: Comparison of GHG emissions between years (historical).
Energy Consumption (*EC)*	EC-1: Total energy consumed (e.g.: terajoule, petajoule).
	EC-2: Quantification of renewable energy consumed.
	EC-3: Disclosure of energy consumption by type, facility, or segment.
Greenhouse Gas Reduction and Cost (*RC*)	RC-1: GHG emission reduction plan or strategy.
	RC-2: Target levels and year of GHG emission reductions.
	RC-3: Emissions successfully reduced and current costs/*savings*.
	RC-4: Estimated future carbon emission burden that has been included in the company's *capital expenditure planning*.
Accountability of Carbon Emissions (*AEC*)	AEC-1: Involvement of other executive boards/committees in climate change responsibilities.
	AEC-2: A board/other executive body review mechanism for the company's progress on climate change issues.

Sources: Saraswati et al. (2021)

The carbon emission disclosure indicator is calculated from the score given for each item. Each item is scored 1 if identified in the business entity's *sustainability report* document then the total score is 18 if all items are met and a score of 0 is given if none of the items are identified. Next, the item score results are entered into the following formula:

$$\text{CED} = \frac{\sum \text{di}}{\text{M}} \; x \; 100\% \qquad (1)$$

Sources: Pratiwi et al. (2021)

Description:

CED : *Carbon Emission Disclosure* (Carbon Emissions Disclosure)

∑di : Total items disclosed

M : Total items (18 items)

Media Exposure

Media exposure is described as the level of media coverage that covers the company's activities on various media platforms at different times (Ferdiani & Mulyani, 2023). These variables are assessed through the use of *Dummies* which refers to research Hidayat et al. (2022). A score of 1 is given to companies that have positive or negative news from outside the company or from internal parties related to the

company's efforts in handling carbon emissions. While 0 is for the opposite. Outsiders refer to media reports *online* and for internal parties referring to *Copyright* each company. Data was obtained by searching for related news through *Copyright* in search *Google*. The search keywords used were "news related to the company's efforts (company name) in handling carbon emissions" and "carbon emissions (company name)".

Company Size

The magnitude of a company serves as an indicator of its financial capacity (Pratiwi et al., 2021). This variable is evaluated through the natural logarithm (ln) of the company's total assets. The application of natural logarithms is employed to diminish data fluctuations without altering the original values (Hidayat et al., 2022). This is the company's capacity calculation method:

$$Size = \ln(\text{Total Assets}) \quad (2)$$

Sources: Pratiwi et al. (2021)

Profitability

Profitability is the potential of an entity to make a profit within a certain period of time from asset management (Widyastuti et al., 2023). This variable is assessed by *Return on Assets* (LENGTH). Here's the ROA formula for profitability:

$$\text{ROA} = \frac{Net\ Profit}{\text{Total Asset}} \quad (3)$$

Sources: Asmeri et al. (2023)

Data Types and Sources

The type of data analyzed in this study is secondary data. The data includes *financial reports* and *sustainability report* documents of entities accessed through the official pages of the entity and the portal of the Indonesia Stock Exchange, www.idx.co.id. The data is also in the form of *an online* news portal through *google search*.

Sample Withdrawal

Sample withdrawal is determined through *a purposive sampling* approach that is determined based on specific conditions that favor the focus of the study. The sample criteria and *purposive sampling results* in the research are listed in the following table:

TABLE II

RESEARCH SAMPLE

No.	Sample Criteria	Quantity
1.	Companies in the field of *basic materials* listed on the Indonesia Stock Exchange from 2021 to 2023	109
2.	Entities that consistently publish annual reporting documents and sustainability reports from 2021-2023	(62)
3.	Entities that prepare their financial statements in Rupiah	(9)
4.	Issuers that consistently posted positive profits during the observation period from 2021 to 2023	(17)
Number of companies selected		21
Number of samples 2021-2023 (21 x 3 years)		63

Source: Researcher-Processed Data (2025)

Data Collection and Analysis Techniques

The strategy in obtaining research data is through a documentation approach, namely by consolidating, recording, and processing secondary data. The data includes financial statements, annual reporting and *sustainability report documents* as well as *news websites* from the entities selected as the object of observation.

The analysis method used in this observation is multiple linear regression. The interpretation of multiple linear regression is aimed at projecting the value of bound variables based on known data from independent variables (Zaenuddin, 2020). The multiple linear regression equation model in this research:

$$CED = \alpha + \beta 1\ ME + \beta 2\ SIZE + \beta 3\ ROA + \varepsilon$$

Description:

CED = *Carbon Emission Disclosure* (Carbon Emissions Disclosure)

a = Konstanta

B1 – B3 = Regression Coefficient

ME = *Media Exposure*
SIZE = Company Size
LENGTH = *Return on Asset* (Profitability Proxies)
E = *Error*.

4. Results and Discussion

Descriptive Statistical Analysis

Descriptive statistical interpretation is applied to illustrate phenomena or characteristics of observational data (Ghozali, 2018). Here are the results:

TABLE III
STATISTICS DESKRIPTIF

	N	Min.	Max.	Mean	Hours of deviation
ME	63	0	1	,43	,499
SIZE	63	25,1609	32,0493	28,6117	1,7322
LENGTH	63	,0013	,2499	,0776	,0596
CED	63	,0000	,8333	,3606	,2259
Valid N (listwise)	63				

Source: SPSS 20 output, data processed (2025)

Based on Table III, the *media exposure* (ME) variable has a fairly wide distribution of data, shown to have a standard deviation of 0.499 which is higher than the average of 0.43. In the company size variable (SIZE), a maximum score of 32.0493 was obtained by PT Semen Indonesia Tbk 2022 and a minimum score of 25.1609 by PT Sinergi Inti Plastindo Tbk 2021. The company size variable (SIZE) obtained a minimal data distribution, as shown by a standard deviation of 1.7322 which was lower than the average of 28.6117. In the profitability variable (ROA), a maximum score of 0.2499 was obtained by PT PAM Mineral Tbk 2022 and a minimum score of 0.0013 by PT Alkindo Naratama Tbk 2023. The profitability variable (ROA) has a low data distribution, as shown by a standard deviation of 0.0596 which is minimal from the average of 0.0776. In the carbon emission disclosure variable (CED), a maximum number of 0.8333 was obtained by PT Indocement Tunggal Prakarsa Tbk 2022. The minimum score is 0.0000 by PT Bintang Mitra Semestaraya Tbk 2021-2023 and PT Berkah Beton Sadaya Tbk 2021-2023. The variable carbon emission disclosure (CED) has a low data distribution, as shown by a standard deviation of 0.2259 which is minimal from the average of 0.3606.

Classic Assumption Test

TABLE IV
CLASSIC ASSUMPTION TEST

Classic Assumption Test	ME	SIZE	LENGTH
Normality Test (Kolmogorov-Smirnov)	0,957		
Multicollinieritas			
- *Tolerance*	0,619	0,654	0,888
- LIVE	1,615	1,530	1,126
Heteroskedastisitas	0,430	0,556	0,409
Autokorelasi (Durbin-Watson)	2,111		

Source: SPSS 20 output, data processed (2025)

Based on table IV, the *output* of the classical assumption test produced, namely the normality test, shows the number 0.957 > 0.05. Thus, the regression scheme in this data follows a normal distribution. Then the multicollinearity test showed that *the tolerance* value per free variable had a number above 0.10 and the VIF value had a number below 10. Therefore, it can be stated that this research does not find any multicollinearity between each independent variable. In the heteroscedasticity test, each variable showed a significance value above 0.05. Therefore, it is stated that this data does not show any indication of heteroscedasticity. And in the autocorrelation test, reviewed from the Durbin-Watson table with an alpha value of 0.05, the dU value is 1.693. Thus, it can be found that 1.693 < 2.111 < 2.306 (dU < DW < 4-dU) indicate that autocorrelation was not found in these observations.

Coefficient Determination Test

TABLE V
COEFFICIENT DETERMINATION

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,782a	,611	,592	,14440816

Source: SPSS 20 output, data processed (2025)

Based on Table V, the determination coefficient (R^2) test is presented with the Adjusted *R-Squared number of* 0.592. Therefore, it can be said that independent variables including *media exposure* (ME), company

size (SIZE), and profitability (ROA) were able to describe 59.2% of the effect of carbon emission disclosure as a dependent variable, while the remaining 40.8% was explained by other aspects outside of this observation.

Analysis of the Regresi Linier Berganda

TABLE VI
MULTIPLE LINEAR REGRESSION ANALYSIS & T TEST

Model	Unstandardized Coefficients		Standardized Coefficients	t	Say.
	B	Std. Error	Beta		
(Constant)	-1,087	,367		-2,960	,004
ME	,153	,047	,337	3,269	,002
SIZE	,051	,013	,392	3,906	,000
LENGTH	-1,043	,327	-,275	-3,193	,002

Source: SPSS 20 output, data processed (2025)

Judging from Table VI, *the output* of the multiple linear regression analysis test was obtained by the regression model with the following equations:

CED = -1,087 + 0,153 ME + 0,051 SIZE - 1,043 ROA

Judging from the results of Table VI, the constant amount is -1.087 which represents if the independent variables, namely *media exposure* (ME), company size (SIZE), and profitability (ROA) are 0 or do not experience a value shift, then the carbon emission disclosure value (CED) is -1.087. If each independent variable experiences an increase of 1%, then the carbon emission disclosure variable (CED) will increase according to the magnitude of the regression coefficient of each independent variable, namely *media exposure* (ME) with a number of 0.153, company size (SIZE) with a number of 0.051, and profitability (ROA) with a number of -1.043.

Partial Effect Significance Test (T-Test)

TABLE VII
HYPOTHESIS TEST RESULTS

Hipotesis	t	Say.	Results
H1: *Media Exposure* has an effect on Carbon Emission Disclosure.	3,269	0,002	Accepted
H2: Company Size Affects Carbon Emission Disclosure.	3,906	0,000	Accepted
H3: Profitability affects Carbon Emission Disclosure.	-3,193	0,002	Accepted

Source: SPSS 20 output, data processed (2025)

Based on the *t-test output* in Table VII, it was obtained that the total calculated t-values of the three variables exceeded the table t-value of 2.00100, and the significance value individually was below 0.05. These findings indicate that separately, the three independent variables have a significant effect on the reporting rate of carbon emissions. So that the three hypotheses are accepted.

Discussion

The Effect *of Media Exposure* on Carbon Emission Disclosure

Reviewed based on output observations, indicating the impact of media exposure on the extent of carbon emissions disclosure. Hence, the initial hypothesis is supported. This indicates that proactive media exposure, which emphasizes an entity, is increasingly likely to encourage the entity to disclose its emissions. This aligns with the principles of legitimacy and stakeholder theory. Where corporations endeavor to uphold their reputation and preserve their legitimacy within society, demonstrating their social responsibility to all stakeholders through environmental and social initiatives. The findings of this study diverge from those of Asmeri et al. (2023), who observed that media exposure does not significantly influence the transparency of carbon emission reporting. These discrepancies in findings may stem from differences in sector-specific characteristics, measurement variables, and employed analytical methodologies. Asmeri et al. (2023), in their research on the food and beverage sector, focus on fundamental materials, which are more intensive in terms of carbon emissions due to high energy consumption in their manufacturing processes, thereby attracting significant public scrutiny. Consequently, media exposure exerts a greater influence on the transparency of carbon emission data.

Furthermore, the measurement of media exposure in Asmeri et al. (2023) primarily emphasizes the

company's internal communication efforts. In contrast, the study also incorporates substantial external coverage from news outlets to better reflect legitimacy pressures and stakeholder demands. Differences in analytical approaches also play a role: Asmeri et al. (2023) employ logistic regression that considers only the presence or absence of disclosure. In contrast, this study uses multiple linear regression to capture variations in disclosure levels more precisely. The findings of this study align with those of Haura and Yuliandhari (2024), Syahdanti and Marietza (2024), Setiany et al. (2022), and Hidayat et al. (2022), indicating that media exposure influences the transparency of information regarding carbon emissions.

The Effect of Company Size on Carbon Emission Disclosure

The results of this study indicate that company size influences the extent of carbon emissions disclosures. Therefore, the second hypothesis is confirmed. This indicates that large corporations are generally more transparent in reporting their carbon emissions, reflecting heightened awareness of social and environmental responsibilities. In this observation, the company's magnitude is assessed based on the total assets reported by the entity. The public may presume that an increase in an entity's asset accumulation will lead to an expansion of the company's operational activities, thereby resulting in higher carbon emissions. In this instance, the community requires the corporation to fulfill its commitments regarding environmental and social responsibilities. This supposition aligns with the theory of legitimacy, as companies endeavor to satisfy societal demands and pressures while preserving their legitimacy by disclosing their carbon emissions. The results of this study align with those of Pratiwi et al. (2021), Setiany et al. (2022), Ratmono et al. (2021), and Hermawan et al. (2018), all of whom found that company size influences the extent to which companies disclose carbon emissions.

The Impact of Profitability on Carbon Emission Disclosure

According to Output Research, profitability affects companies' decisions to disclose their carbon emissions. Therefore, the third hypothesis is adopted. Nevertheless, it indicates the impact of a detrimental trend. The findings of this study are derived from the work of Asmeri et al. (2023), which concluded that profitability did not significantly influence transparency in carbon emission reporting. These variations in findings may be attributed to differences across sectors, time frames, and companies' strategies for addressing legitimacy pressures. Asmeri et al. (2023), who examined the food and beverage sector from 2017 to 2019, may have focused on this sector because of its relatively low emissions, suggesting that environmental issues have not been a primary concern for stakeholders and companies. Consequently, there appears to be little perceived need to utilize emissions disclosure as a legitimacy tool, irrespective of their financial situation.

Meanwhile, this study analyzes the fundamental materials from 2021 to 2023, a period marked by prominent environmental concerns and intensifying public scrutiny, particularly for corporations with substantial environmental footprints. The results of this study indicate that companies with high profitability tend to disclose lower levels of their carbon emissions. Entities with lower profitability levels aim to communicate environmental information to enhance legitimacy, whereas highly profitable firms tend to restrict disclosures to preserve their financial reputation (Putri et al., 2022). This statement pertains to the theory of legitimacy: companies with low profitability aim to acquire legitimacy from the public, thereby enhancing their value. Regarding the relationship with the theoretical stakeholder, that is, entities with substantial profits possess greater capacity to fulfill stakeholder expectations, thereby reducing their concern regarding the disclosure of carbon emissions. These findings are consistent with the research by Putri et al. (2022), Ratmono et al. (2021), and Mujiani et al. (2019), indicating that profitability negatively influences the extent of carbon emission reporting.

5. Conclusion

This study seeks to ascertain the partial impact of media exposure, company size, and profitability on carbon emission disclosure. The chosen study sample comprised 63 samples from basic materials businesses listed on the Indonesia Stock Exchange for the period of 2021-2023. This study partially demonstrates the impact of media exposure, company size, and profitability on carbon emission disclosure. This investigation yields multiple findings. Initially, it indicates that firms that engage with proactive media are more inclined to report their carbon footprints in an effort to uphold their reputation. Secondly, it suggests that when a company's scale expands, the transparency about carbon emissions also escalates in response to public demand and expectations. Third, it demonstrates that firms with subpar economic performance are incentivized to disclose their carbon emissions to enhance their legitimacy within society. This study is limited since it encompasses only a 3-year period, rendering it insufficient to characterize the long-term trend of carbon emission disclosure. Future study proposals should aim to prolong the research duration and investigate additional elements to obtain a more thorough understanding of carbon emissions reporting methods. Consequently, this research may facilitate future inquiries that enhance our comprehension of the impact of carbon emission disclosure aspects.

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