The impact of cabon performance, green strategy, financial performance, and media exposure on carbon emissions disclosure

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Abstract

This study aims to analyze the impact of carbon performance, green strategy, financial performance, and media exposure on carbon emissions disclosure among manufacturing companies listed on the Indonesia Stock Exchange (IDX) during 2022 to 2024. The background of this study is based on the increase in greenhouse gas emissions from manufacturing companies in Indonesia, which reached 367,738 thousand tons of CO_2e in 2023, as well as the still low quality and consistency of companies' carbon emissions disclosures. This study employs a quantitative research design with a causal approach and is grounded in legitimacy theory. The data used consists of secondary data in the form of annual reports and sustainability reports obtained from the official IDX website and the respective companies' websites. The sampling technique employed purposive sampling, with a total sample of 264 observations from 88 manufacturing companies. Data analysis utilized multiple linear regression with the assistance of SPSS 31, yielding an Adjusted R^2 value of 37.7%. The research results indicate that carbon performance, green strategy, and media exposure have a positive effect on carbon emissions disclosure. Meanwhile, financial performance does not affect carbon emissions disclosure. These findings confirm that carbon emissions disclosure is influenced not only by financial capacity but also by the quality of emissions management, strategic environmental orientation, and public pressure through the media.

Keywords: Carbon Emissions Disclosure, Carbon Performance, Green Strategy, Finansial Performace, Media Exposure

INTRODUCTION

Climate change has now become a global issue affecting the stability of ecosystems and the sustainability of modern economic activities (World Trade Organization, 2025). The rise in global temperatures exceeding 1.55°C in 2024 indicates a deterioration in atmospheric conditions, triggering an increase in hydrometeorological disasters across various countries (Herlambang, 2025). This phenomenon is driven by the accumulation of greenhouse gas emissions (CO_2e) as the primary contributor to global warming (Linda, 2025). According to Monica et al. (2025), global CO_2e emissions increased by 53.2 billion tons, or approximately 1.3%, compared to 2023. This increase indicates that the effectiveness of emission reductions remains limited, as evidenced by the fact that only 18% of companies have net-zero targets verified by the Science Based Targets initiative (SBTi) (Widowati, 2025).

The limited effectiveness of emission reduction efforts is also evident at the national level, where Indonesia ranked sixth as the largest carbon emitter in 2024 (Ahdiat, 2025). Total emissions reached 1.32 billion tons of CO_2e, equivalent to 2.5% of global greenhouse gas emissions (Yonatan, 2025). The magnitude of this contribution aligns with the increase in domestically monitored greenhouse gas concentrations exceeding 420 parts per million (ppm) (BMKG, 2025). These conditions indicate that fossil fuel-based activities and deforestation remain dominant and have not yet been fully controlled. This is reflected in the 2023 national emissions as presented in Figure 1 below:

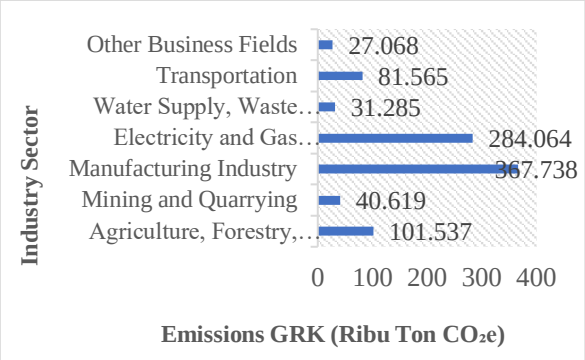


Figure 1. Total GRK Emissions 2023
Source: Central Statistics Agency (2026), (Processed)

The manufacturing sector is the primary contributor, with emissions reaching 367,738 thousand tons of CO_2e in 2023, up form 343,665 thousand tons in 2022 (BPS, 2025). An increase of 24,073 thousand tons of CO_2e in a single year indicates that industrial activities continue to exert significant enviromental pressure, necessitating serious management effort to reduce the ever increasing emissions burden. This situation is further underscored by the fact that only 31% of Indonesian companies have set net zero emission targets by 2024 (Foundation for International Human Rights Reporting Standards, 2025). These enviromental pressure and regulations have driven the emergence of carbon emissions disclosure as a critical mechanism for enhancing corporate emissions trasparency and accountability (Rangkuti et al., 2025).

Carbon emissions disclosure is an integral part of sustainability reporting used to convey information regarding the magnitude of carbon emissions and management strategies (Azzahra & Hamzah, 2025). This disclosure enables stakeholders to assess the extent to which companies are accountable for the ecological impacts resulting from their business activities (Wahyuningrum et al., 2024). In Indonesia, carbon emissions management is reinforced through Ministry of Environment and Forestry Regulation No. 21 of 2022, which requires the measurement and reporting of greenhouse gas emissions in a quantifiable and verified manner, as well as OJK Regulation No. 51/POJK.03/2017, which mandates that public companies prepare sustainability reports (OJK, 2017; Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia, 2022). However in practice, the level of carbon emissions disclosure remains uneven (Andriyani & Sumarta, 2025). Data from the Foundation for International Human Rights Reporting Standards (2025) indicates that the level of Scope 3 emissions disclosure in Indonesia in 2024 reached only 40%, and only 26% of companies have established integrated emission reduction targets. This situation highlights a gap between sustainability commitments and the technical implementation of emission controls.

In the context of environmental accountability in Indonesia, the phenomenon of gas flaring at PT Chandra Asri Pacific Tbk (TPIA) facilities is one case reflecting a transparency gap, where the operational shutdown of the Ethylene Plant in Cilegon on January 20, 2024, due to a failure in the quench water pipe cooling system triggered the release of hydrocarbons and CO_2 emissions through flaring, yet the incident and its emission contributions were not disclosed in TPIA's 2024 sustainability report (indopremier.com, 2024; Chandra Asia Pacific, 2025). A similar gap also occurred at PT Pindo Deli Pulp and Paper Mills 3 (PIDL), which was temporarily suspended by the Ministry of Environment and Forestry (KLHK) in August 2023 due to violations of stack standards and coal waste management, with findings including improper installation of sampling ports, invalid measurement methods, and indications of manipulation through air dilution to mask emission levels, which substantially undermined the validity of the company's reported direct emission figures (Dwi, 2023). This demonstrates that emission calculation procedures do not reflect the actual carbon footprint on the ground

(Purnama, 2023). These two cases underscore that carbon emissions reporting in Indonesia tends to be administrative in nature and remains weak in terms of transparency and operational accountability.

Various phenomena in carbon emissions disclosure practices indicate that disclosure plays a crucial role as a means for companies to maintain social legitimacy. The legitimacy theory perspective views information disclosure as a company's effort to align operational activities with prevailing societal values and norms to sustain public acceptance (Dowling & Pfeffer, 1975). A mismatch between corporate activities and societal expectations can create a legitimacy gap that has the potential to damage reputation, increase social pressure, and limit a company's access to necessary economic resources (Rahmadhani & Budiantara, 2025). In line with this, management utilizes disclosure policies as an instrument for shaping positive perceptions, which are simultaneously influenced by both internal and external factors (Traub et al., 2025). This underscores the urgency of researching the factors influencing management's considerations in determining the level of carbon emissions disclosure.

This study builds upon Yuliana & Wedari (2023), who investigated carbon emissions disclosure based on carbon performance, green strategy, and financial performance in Indonesia's high-pollution industries from 2017 to 2020. This study differs from the research by Yuliana & Wedari (2023) in several aspects. First, this study adds the media exposure variable because, based on legitimacy theory, public pressure triggered by media coverage drives companies to adjust their operational activities and environmental information disclosure to maintain social legitimacy (Herdiawan & Dewi, 2023). Second, this study focuses on manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the 2022–2024 period, representing the implementation phase of the carbon economic value policy through Ministry of Environment and Forestry Regulation No. 21 of 2022 and reflecting the conditions of the sector with the highest emissions contribution in Indonesia (Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia, 2022; BPS, 2025). Third, this study includes firm size and firm age as control variables to enhance the model's robustness. Theoretically, this study is expected to contribute to the literature on sustainability accounting regarding the determinants of carbon emissions disclosure based on legitimacy theory. Practically, the findings of this study can serve as a reference for company management in designing more transparent and credible carbon emissions disclosure strategies, as well as provide input for regulators in evaluating the effectiveness of sustainability reporting regulations in Indonesia.

Carbon performance reflects a company's ability to manage and reduce greenhouse gas emissions as part of sustainable business practices (Priliana & Ermaya, 2023). From a legitimacy theory perspective, carbon performance indicates the alignment of a company's operational activities with societal values and expectations regarding environmental responsibility (Asmoro et al., 2024). Companies with good emissions management tend to have more structured environmental data, which encourages more open disclosure of carbon emissions as a form of accountability for their achieved environmental performance (Riswanda & Trisnawati, 2025). Additionally, public pressure regarding environmental responsibility drives companies to enhance disclosure transparency to secure social legitimacy (Wiguna et al., 2025). Research Azzahra & Hamzah (2025), Cahyaningsih & Rahmadiah (2024), serta Ladista et al. (2023) indicates that carbon performance has a positive effect on carbon emissions disclosure. However, Yuliana & Wedari

(2023) found no significant results, while Putri & Arieftriara (2023)) demonstrated a negative relationship. A company's ability to control emissions reflects the quality of its environmental management and its readiness to present measurable environmental information. These conditions encourage companies to disclose carbon emissions more extensively to demonstrate environmental accountability and maintain social legitimacy.

H_1: Carbon performance has a positive effect on carbon emissions disclosure.

Green strategy is a company's strategic initiative to integrate environmentally friendly principles into innovation, operational processes, and organizational governance (Siahaya, 2024). In legitimacy theory, a green strategy reflects a company's efforts to align strategic policies with societal expectations regarding environmental sustainability (Chairunnisa et al., 2025). The implementation of green strategies encourages companies to formulate established environmental policies in a more focused and consistent manner, thereby facilitating the communication of environmental information to stakeholders (Gandrita et al., 2023). In this context, carbon emissions disclosure serves as a means for companies to communicate these policies and activities to the public. Therefore, the implementation of green strategies is associated with companies' propensity to engage in carbon emissions disclosure. Research by Andrian & Kevin (2021) and Yuliana & Wedari (2023) indicates that green strategies have a positive effect on carbon emissions disclosure. However, Baroroh & Harto (2025), found that green strategies do not affect carbon emissions disclosure. The implementation of green strategies encourages companies to establish environmental policy directions that are more integrated with operational activities and organizational governance. This clarity in strategic direction enhances a company's capacity to communicate environmental policies and management practices through carbon emissions disclosure.

H_2: Green strategy has positive effect on carbon emissions disclosure.

Financial performance reflects a company's ability to generate profits and maintain financial stability through efficient resource management (Bago & Zurrahman, 2023). From a legitimacy theory perspective, sound financial conditions demonstrate a company's capacity to meet stakeholders' demands for transparency and environmental accountability (Wahyuningrum et al., 2025). Companies with high financial performance tend to have more adequate resources to support more structured environmental management and reporting (Yohana & Suhendah, 2023). Additionally, stable financial conditions encourage companies to maintain their reputation through broader information disclosure, including carbon emissions disclosure (Carreira et al., 2025). Research by Putri et al. (2025), Wahyuningrum et al. (2024), and Yuliana & Wedari (2023) indicates that financial performance has a positive effect on carbon emissions disclosure. However, Azzahra & Hamzah (2025), Hidayat et al. (2022), and Putri & Arieftriara (2023) did not find a significant effect. High financial performance reflects the availability of economic resources that can be allocated to support the management, measurement, and reporting of environmental information in a more systematic manner. This capacity enables companies to provide more comprehensive carbon emissions disclosures to maintain their reputation and meet stakeholders' demands for transparency.

H_3: Financial Performance has a positive effect on carbon emissions disclosure.

Media exposure reflects the level of media coverage a company receives,

indicating how widely the company's activities are in the public spotlight (Paradilla et al., 2025). In legitimacy theory, high media attention places the company under greater public scrutiny, thereby encouraging the company to echance transparency regading enviromental information (Muslih & Caesaria, 2024). This public pressure drives companies to expand their carbon emissions disclosure as an effort to maintain social legitimacy amid growing attention to enviromental issues (Nurhasanah & Afriyenti, 2024). Companies receiving high media exposure tend to disclose emissions information more openly to safeguard their reputation and stakeholder trust (Traub et al., 2025). Research by Hidayat et al. (2022), Putri et al. (2025), and Wahyuningrum et al. (2024) indicates that media exposure has a positive effect on carbon emissions disclosure. However, Putri & Arieftriara (2023) Putri & Arieftriara (2023) found that media exposure does not affect carbon emissions disclosure. High media exposure increases public attention on corporate activities, including environmental management practices. This situation encourages companies to expand their carbon emissions disclosure as a response to external pressure and an effort to maintain social legitimacy.

H_4: Media exposure has a positive effect on carbon emissions disclosure.

From a legitimacy theory perpective, firm size reflects the scale of the company, which is related to the level of public scrutiny and reporting capacity, thus larger companies trend to face higher transparency demands and possess adequate reporting systems to drive broader carbon emissions disclosure (Afdilah & Triyono, 2025). Meanwhile, firm age relates to the company's operational history, reflecting experience in managing and presenting information; thus, the longer a company has been in operation, the greater its organizational experience and reputational responsibility, which drives consistency in carbon emissions disclosure (Widyastuti et al., 2022). Therefore, firm size and firm age are considered to potentially influence the extent of carbon emissions disclosure and are thus used as control variables in this study.

RESEARCH METHODOLOGY

This study employs a quantitative research design with casual approach. The use of quantitative methods enables the analysis of cause and effect relationships among variables through statistical processing of numerical data, allowing research results to be presented objectively and systematically. Meanwhile, the causal approach was chosen because this study focuses on testing the influence of independent variables on the dependent variable (Sahir, 2021).

This study uses a population consisting of all manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2022 to 2024, totaling 224 companies. The sample was determined using purposive sampling, a method of selecting samples based on specific criteria tailored to the research objectives, ensuring that the data obtained is more relevant and suitable for the analysis (Chandrarin, 2018). The research sample criteria are presented in Table 1 below:

Table 1. Sampling Criteria

Sample Criteria	Number
Manufacturing companies listed on the IDX	224
Manufacturing companies not consistently listed on the IDX during 2022-2024	(59)
Manufacturing companies that did not consistently publish annual reports and sustainability reports on the IDX or on the company's website during 2022-2024	(23)
Manufacturing companies that did not disclosure scope 1 emissions in their sustainability reports	(54)

Total number of companies meeting the criteria	88
Number of research periods	3 years
Number of companies samples during 2022-2024	264

Source: Processed by Researchers, (2026)

This study uses carbon emissions disclosure as the dependent variable, carbon performance, green strategy, financial performance, and media exposure as independent variables, and firm size and firm age as control variables. The use of firm size and firm age as control variables is based on their relationship with a company's reporting capacity and the consistency of its environmental disclosures (Afdilah & Triyono, 2025; Widyastuti et al., 2022).

Table 2. Operational Variables

Variable	Definition	Measurement
Carbon Emissions Disclosure (CED)	An integral part of sustainability reporting used to convey information regarding the magnitude of carbon emissions and management strategis (Azzahra & Hamzah, 2025)	Content analysis Skor 1 if the item is disclosure, score 0 if the item is not disclosure CED = $\frac{\Sigma di}{M}$ Notes: CED = Carbon Emissions Disclosure Σdi = Total score obtained by the company M = Maximum number of items that can be disclosure (Choi et al., 2013)
Carbon Performance (CP)	A company's ability to manage and reduce greenhouse gas emissions as part of sustainable business practices integrated into operational activities (Priliana & Ermaya, 2023)	CP = $\frac{\text{Total scope 1 carbon emissions}}{\text{Total sales}}$ (Yuliana & Wedari, 2023)
Green Strategy (GS)	A company's efforts to integrate environmentally friendly principles into innovation operational processes and governance (Siahaya, 2024)	Content analysis Score 1 if the item is disclosed, scope 0 if the item is not disclosed GS = $\frac{V}{M}$ Notes = GS = Green strategy V = Total disclosed items M = Total expected items (18 items) (Moini et al., 2014)
Financial Performance (FP)	A company's ability to generate profits while maintaining financial stbaility through efficient resource management (Bago & Zurrahman, 2023)	FP = Return On Assets FP = $\frac{\text{Net profit}}{\text{Total assets}}$ x 100% (Putri et al., 2025)
Media Exposure (ME)	The level of media coverage of a company, reflecting how frequently and extensively the company's	Dummy variable Score 1 if the company has positive or negative news coverage regarding

Variable	Definition	Measurement
	activities are highlighted by the public through various information channels (Paradilla et al., 2025)	its efforts to address carbon emissions, score 0 otherwise (Hidayat et al., 2022)
Firm Size (FS)	The size of a company based on its economic capacity, typically reflected in total assets, revenue levels, and equity size (Afdilah & Triyono, 2025)	FS = LN (Total assets) (Yuliana & Wedari, 2023)
Firm Age (FA)	The duration of the company's operational activities since its establishment or since its listing on the capital market (Handoyo, 2020)	FA = LN (Company age) (Putri & Arieftriara, 2023)

Source: Processed by Researchers, (2026)

Data analysis in this study utilized descriptive statistical tests, classical assumption tests, the coefficient of determination (R^2) test, model fit test (F-test), partial tests (t-test), and multiple linear regression analysis using the Statistical Package for the Social Sciences (SPSS). The classical assumption tests include the normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test. Multiple linear regression was chosen because it is suitable for testing the effects of carbon performance, green strategy, financial performance, and media exposure on carbon emissions disclosure. The multiple linear regression model in this study is formulated as follows:

$$CED = \alpha + \beta_1 CP + \beta_2 GS + \beta_3 FP + \beta_4 ME + \beta_5 FS + \beta_6 FA + \varepsilon$$

Notes:
CED : Carbon Emissions Disclosure
CP : Carbon Performance
GS : Green Strategy
FP : Financial Performance
ME : Media Exposure
FS : Firm Size
FA : Firm Age
α : Konstanta
β_1-β_6 : Regression Coefficients
ε : Error term

RESULTS AND DISCUSSION

The data analysis in this study began with descriptive statistics to describe the characteristics of the research data based on the mean, minimum, maximum, and standard deviation. The characteristics the data in this study are presented in Table 3.

Table 3. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
CED	264	0.222	0.944	0.642	0.131
CP	264	0.000	0.000	0.000	0.000
GS	264	0.277	0.833	0.589	0.115
FP	264	-0.444	1.369	0.064	0.122
ME	264	0.000	1.000	0.350	0.479
FS (billion)	264	119.106	201,713.313	12,944.117	30,976.453
FS (Ln)	264	2.503	32.937	28.918	1.500

FA (years)	264	1.000	43.000	20.890	12.624
FA (Ln)	264	0.000	3.761	2.706	0.975

Sumber: Processed by Researchers, (2026)

Based on the descriptive statistics of the research variables presented in Table 3, carbon emissions disclosure (CED) has a minimum value of 0.222, a maximum value of 0.944, a mean of 0.642, and a standard deviation of 0.131. The mean value, which is close to the maximum value, reflects that most companies have a relatively high disclosure rate (above 50%). Carbon performance (CP) has a minimum value of 0.000, a maximum value of 0.000, a mean of 0.000, and a standard deviation of 0.000, indicating that the direct emissions generated by companies tend to be very small compared to total sales, suggesting relatively good carbon performance. Green strategy (GS) has a minimum value of 0.277, a maximum value of 0.833, a mean of 0.589, and a standard deviation of 0.115, indicating that the level of green strategy implementation across companies is relatively good with minimal variation. Financial performance (FP) has a minimum value of -0.444, a maximum value of 1.369, a mean of 0.064, and a standard deviation of 0.122, indicating that financial performance across companies tends to be low with a fairly high level of variation. Media exposure (ME) is measured using a dummy variable with a minimum value of 0.000, a maximum value of 1.000, a mean of 0.350, and a standard deviation of 0.479, indicating that the proportion of companies receiving media exposure remains relatively low and uneven across firms.

The firm size (FS) control varible has a minimum value of Rp119.106 billion, a maximum value of Rp201,713.313 billion, an average of Rp12,944.117 billion, and a standard deviation of Rp30,976.453 billion, indicating a high variaton in firm size with a significant asset gap, where some firms have a much larger asset scale compared to others. Firm age (FA) has a minimum value of 1 year, a maximum value of 43 years, an average of 20.890 years, and a standard deviation of 12.624 years, indicating that most firms are at an established stage despite considerable variation in age among firms.

This study first conducted classical assumption testing through a series of statistical tests to ensure that the regression model met the necessary assumptions. The overall result of the classical assumption testing are comprehensively presented in Table 4 as a basis for further hypothesis testing

Table 4. Classical Assumption Test

Classical Assumption Test	**Indicators/Variables**			**Sig.**
Normality Test	Asymp. Sig (2-tailed)			0,200
		Tolerance	**VIF**	**Sig.**
Multicollinearity Test and Heteroscedasticity Test	CP	0,976	1,024	0,394
	GS	0,802	1,247	0,482
	FP	0,977	1,024	0,214
	ME	0,700	1,430	0,682
	FS	0,634	1,578	0,212
	FA	0,935	1,069	0,842
Autocorrelation Test	Durbin-Watson			1.868

Source: Processed by Researchers, (2026)

The result of the normality test in Table 4, using the Kolmogorov-Smirnov method, yielded an Asymp. Sig. (2-tailed) value of 0.200, which is higher than significance level of α = 0.05. These results indicate that the residuals in the regression model are normally distributed, thus satisfying the normality test. With this test met, the regression model is deemed suitable for use in the subsequent statistical testing stages.

The results of the multicollinearity test show that the regression model does not exhibit any signs of multicollinearity. This is reflected in all tolerance values being above 0.10 and Variance Inflation Factor (VIF) values being below the maximum limit of 10. Specifically, carbon performance has a tolerance value of 0.976 and a VIF of 1.024, green strategy has values of 0.802 and 1.247, financial performance has values of 0.977 and 1.024, media exposure has values of 0.700 and 1.430, firm size at 0.634 and 1.578, and firm age at 0.935 and 1.069. These findings indicate that the independent variables do not exhibit high correlations that could interfere with the accuracy of the regression model estimates; thus, the model passes the suitability test and can be used for further analysis.

The results of the heteroscedasticity test show that all independent variables have significance values above α = 0.05, namely carbon performance at 0.394, green strategy at 0.482, financial performance at 0.214, media exposure at 0.682, firm size at 0.212, and firm age at 0.842. These conditions indicate that the residual variance is constant and that there is no heteroscedasticity in the regression model. Thus, the research model has passed the homoscedasticity test and is suitable for use in the hypothesis testing process.

The Durbin-Watson test for autocorrelation yielded a value of 1.868. This value falls between the lower bound of du = 1.836 and the upper bound of 4-du = 2.163 (1.836 < 1.868 < 2.163), indicating that the regression model is free from autocorrelation. The fulfillment of all these classical assumption tests indicates that the regression model used has an adequate level of validity and meets the requirements for use in the next stage of analysis.

This study conducted model validity tests using the coefficient of determination (Adjusted R^2) and the simultaneous test (F-test) to assess the regression model's ability to explain the dependent variable. The results of the model validity tests are presented in Table 5.

Table 5. Goodness of Fit Test

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,778	6	0,296	27,518	<,001
	Residual	2,768	257	0,011		
	Total	4,5437	263			

Source: Processed by Researchers, (2026)

Based on Table 5, the Adjusted R^2 value of 0.377 indicates that carbon performance, green strategy, financial performance, and media exposure account for 37.7% of the variation in carbon emissions disclosure, while the remaining 62.3% is influenced by other variables outside the research model. Meanwhile, the results of the simultaneous test (F-test) show a calculated F-value of 27.518, which is greater than the critical F-value of 2.137 at a significance level of 0.001 (p < 0.05). These results indicate that the regression model used is well fitted and capable of explaining the simultaneous effects of the independent variables on carbon emissions disclosure.

The relationship between carbon performance, green strategy, financial performance, and media exposure on carbon emissions disclosure was analyzed using multiple linear regression. The results of the research hypothesis testing are presented in Table 6.

Table 6. Multiple Linear Regression

Variable	Hypothesis Prediction	Expected Coefficient	B	t	Sig.	Conclusion
CP	(+)	(-)	-356,743	-2,145	0,033**	Accepted
GS	(+)	(+)	0,148	2,384	0,018**	Accepted
FP	(+)	(+)	0,052	0,988	0,324	Not Accepted
ME	(+)	(+)	0,036	2,273	0,024**	Accepted
FS			0,039	7,279	0,001***	Accepted
FA			0,006	0,819	0,414	Not Accepted

Dependent Variable: Carbon Emissions Disclosure
Source: Processed by Researchers, (2026)

Based on Table 6, the results of the hypothesis testing show that carbon performance has a positive effect on carbon emissions disclosure with a significance value of 0.033 < 0.05 and a calculated t-value of -2.145, which is greater than the critical t-value of 1.651, with a negative regression coefficient of -356.743. Green strategy shows a positive and significant effect on carbon emissions disclosure with a significance value of 0.018 < 0.05, and a calculated t-value of 2.384 > 1.651. Conversely, financial performance does not show a significant effect because it has a significance value of 0.324 > 0.05 and a calculated t-value of 0.988 < 1.651. Media exposure was found to have a positive and significant effect on carbon emissions disclosure, with a significance value of 0.024 < 0.05 and a t-value of 2.273 > 1.651. Among the control variables, firm size showed a positive and significant effect with a significance value of 0.001 < 0.05, while firm age did not show a significant effect because it had a significance value of 0.414 > 0.05.

Based on statistical analysis, carbon performance has a positive effect on carbon emissions disclosure, thus supporting the first hypothesis (H1). Although the regression coefficient is negative, this is duet o the measurement of carbon performance using the rasio of scope 1 emissions to total sales, consequently a smaller value actually reflects better carbon performance and encourages more extensive disclosure. From the perspective of legitimacy theory, carbon performance represents the alignment between a company's operational activities and the prevailing social values and expectations in society (Asmoro et al., 2024). Companies utilize information related to carbon performance to reinforce the perception that their operational activities align with societal norms; thus, the higher the carbon performance, the greater the incentive for companies to disclose environmental information in the form of carbon emissions disclosures to stakeholders (Riswanda & Trisnawati, 2025). This finding aligns with the research by Azzahra & Hamzah (2025), Cahyaningsih & Rahmadiah (2024), and Ladista et al. (2023) which which state that carbon performance has a positive effect on carbon emissions disclosure.

The results of the second hypothesis test indicate that green strategy has a positive effect on carbon emissions disclosure, thus supporting the second hypothesis (H2). A green strategy integrated into innovation, operational processes, and corporate governance provides a systematic framework for management to manage environmental performance, thereby encouraging companies to adopt a more structured system for managing and recording environmental information and facilitating the preparation of carbon emissions disclosures (Siahaya, 2024). From the perspective of legitimacy theory, green strategy reflects a company's efforts to align strategic policies with evolving social values and expectations regarding environmental issues (Chairunnisa et al., 2025). The implementation of a green strategy not only encourages companies to manage environmental issues internally but also promotes the disclosure of information to the public through carbon emissions disclosure as a form of transparency to build social legitimacy (Ma et al., 2025). These findings align with the research by Andrian & Kevin (2021) and Yuliana & Wedari (2023), but differ from Baroroh & Harto (2025) who found no significant effect.

The results of the third hypothesis test indicate that financial performance does not influence carbon emissions disclosure; therefore, the third hypothesis (H3) is not supported. From the perspective of legitimacy theory, a company's financial condition reflects its economic capacity to meet social expectations, including environmental responsibilities. Companies with stable financial performance have greater flexibility in allocating funds to activities that do not directly generate revenue, such as sustainability reporting (Wahyuningrum et al., 2025). However, the availability of these financial resources is insufficient to encourage companies to increase carbon emissions disclosure because management tends to prioritize activities that directly impact profitability over voluntary environmental reporting activities; thus, profits are more likely to be allocated to core operational activities or investments that provide direct returns (Solikhah & Maulina, 2021). This situation means that profitability, as measured by the return on assets, does not serve as a determining factor in companies' decisions to expand carbon emissions disclosure (Bago & Zurrahman, 2023). This finding is consistent with the research by Azzahra & Hamzah (2025), Hidayat et al. (2022), and Putri & Arieftriara (2023), but differs from Putri et al. (2025) and Wahyuningrum et al. (2024), who found a positive effect.

The results of the fourth hypothesis test indicate that media exposure has a positive effect on carbon emissions disclosure; thus, the fourth hypothesis (H4) is supported. Media attention places companies in a position where they are more open to public scrutiny, thereby encouraging them to disclose carbon emissions more extensively as a response to external pressure (Putri et al., 2025). From the perspective of legitimacy theory, media exposure acts as a mechanism of external pressure that influences how companies align their business practices with prevailing social values and expectations in society (Nurhasanah & Afriyenti, 2024). High media spotlight intensity creates a need for companies to respond to information circulating in the public sphere and demonstrate commitment to environmental issues; thus, media exposure functions as a driving factor that reinforces companies' tendency to engage in carbon emissions disclosure as part of a strategy to maintain social legitimacy. These findings align with the research by Hidayat et al. (2022), Putri et al. (2025), and Wahyuningrum et al. (2024), but differ

from Putri & Arieftriara (2023), who found No. significant influence.

CONCLUSION

The findings of this study indicate that carbon performance, green strategy, and media exposure have a positive effect on companies' carbon emissions disclosure. These results suggest that companies with better emissions management, more structured environmental policies, and higher levels of public attention tend to have greater motivation and capacity to disclose carbon emissions information more broadly as a form of transparency and an effort to maintain social legitimacy. Conversely, financial performance does not influence carbon emissions disclosure, suggesting that the availability of economic resources has not yet become a determining factor in carbon emissions disclosure decisions, as management tends to prioritize allocating profits to activities that yield direct returns. This study confirms the relevance of legitimacy theory in explaining the carbon emissions disclosure behavior of manufacturing companies in Indonesia, where carbon emissions disclosure is viewed as a strategic instrument to align operational activities with prevailing social expectations in society.

This study is limited to manufacturing companies listed on the IDX during the 2022–2024 period; therefore, the research findings cannot yet be generalized to the entire sector. Furthermore, the independent variables used account for only 37.7% of the variation in carbon emissions disclosure, indicating that other variables outside the model may potentially explain this variation.

RECOMMENDATION

Future research is recommended to expand the sectoral scope, extend the observation period, and include variables such as carbon management strategy, green corporate governance, and environmental performance. For companies, the findings of this study have practical implications: improving carbon emissions management, strengthening the implementation of green strategies, and adopting a more proactive approach to media exposure can support the enhancement of carbon emissions disclosure quality as a demonstration of commitment to sustainability and compliance with environmental regulations.

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