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Carbon Emission Disclosure: Media Exposure, Profitability, and Company size Moderation in Mining

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ABSTRACT

Purpose : The study specifically analyzes how media exposure and profitability influence carbon emission disclosure (CED) in mining companies listed on the Indonesia Stock Exchange (IDX) during 2019–2023 and evaluates whether company size moderates these relationships.
Method : Using a quantitative approach, the research applied purposive sampling and obtained 64 mining companies as the final sample. Data were collected from annual reports and sustainability reports, then analyzed through descriptive statistics and hypothesis testing using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method with WarpPLS 7.0.
Findings : The results show that media exposure has no significant effect on CED, while profitability has a positive and significant effect. Moreover, company size moderates the relationship between media exposure and CED but does not moderate the link between profitability and CED.
Novelty : The novelty lies in introducing company size as a moderating variable, offering fresh insights into the interaction between internal capacity and external pressures in shaping disclosure practices.

INTRODUCTION

Indonesia faces significant challenges in addressing rising carbon emissions, primarily from land use, energy, and transportation sectors. The land use sector is the largest contributor, driven by deforestation, land degradation, land clearing for oil palm plantations, forest fires, and peatland drainage, all of which release substantial amounts of carbon. A major peak in emissions occurred in 2019 due to massive forest fires, which not only increased carbon concentrations but also deteriorated air quality and caused extensive health and economic impacts. (Gunawan et al., 2020). The energy sector significantly contributes to Indonesia's carbon emissions, with heavy reliance on fossil fuels, particularly coal, posing a major obstacle to emission reduction. Despite government efforts to promote renewable energy, the rising demand for low-cost fossil-based energy to sustain economic growth remains difficult to curb (Nurjanah & Mulyandini, 2024). However, the transition to clean energy is still slow, so carbon emissions from this sector remain an urgent issue to address. The greenhouse gas emission trends in Indonesia during the period 2019–2022 are illustrated in Figure 1.

As illustrated in Figure 1, the graph shows greenhouse gas (GHG) emissions data from the industrial sector in Indonesia for the period 2018 to 2022, which consists of three main sources of emissions: Industrial GHG emissions are primarily driven by Industrial Energy (blue), which consistently records the highest and relatively stable levels. Industrial Waste (orange) contributes less but remains a notable component of total emissions, while IPPU (gray) accounts for the smallest share. The total industrial emissions (yellow), representing the sum of all sources, record the highest values each year (Ulupui et al., 2020). This data also indicates an increase in total emissions from 2018 to 2022. More strategic prevention efforts, strict monitoring, and consistent law enforcement are needed to address this issue in the future. To address this, the Indonesian government committed through the Paris Agreement with a target of reducing greenhouse gas emissions by 29% independently and up to 41% with international support by 2030 (Wahyuningrum et al., 2024). This study focuses on the sub-mining manufacturing sector, which

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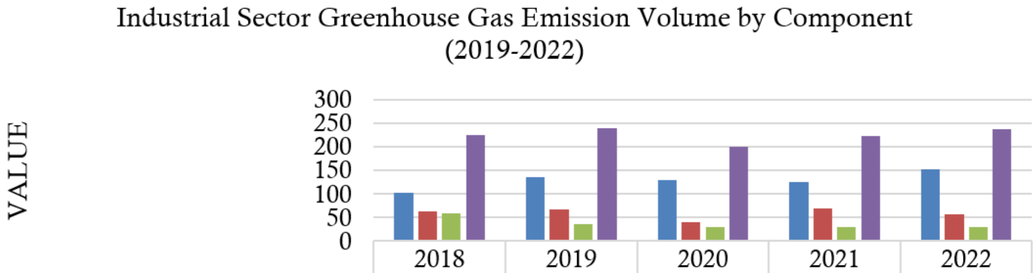

	2018	2019	2020	2021	2022
Industrial Energy	103	135.9	130	125.1	152.2
Industrial Waste	63	68.1	40.3	68.8	56.1
IPPU	59.3	36.7	30.2	29	29.7
Total industry GHG emissions	225.3	240.7	200.5	222.9	238.1

Figure 1. Industrial Sector Greenhouse Gas Emission Volume by Component (2019-2022)

contributes significantly to environmental issues, particularly carbon emissions, making it highly relevant for sustainability and carbon reporting research.

Media exposure is a key factor influencing carbon emission disclosure. From a Stakeholder Theory perspective, media plays a dual role as both a facilitator and a pressure mechanism. It represents stakeholders' demands for greater transparency and accountability, prompting companies to enhance disclosure when media coverage aligns with stakeholder expectations, thereby supporting legitimacy and trust. Nurjanah & Mulyandini (2024) shows that media exposure increases corporate awareness of the importance of carbon emissions disclosure, prompting companies to be more transparent in their sustainability reports. Additionally, Putri & Hermi (2024) found that high media exposure encourages companies to disclose carbon emissions information more extensively as a form of accountability to the public. Furthermore, Syafik et al. (2025); Nurjanah & Mulyandini (2024); Putri & Hermi (2024); Syafik et al. (2025) emphasized that media exposure has a positive influence on carbon emissions disclosure through the enhancement of the social capital of the board of directors, making companies more open in their sustainability reporting. On the other hand, some studies have also found that media exposure can have a negative and significant impact on carbon emissions disclosure. According to Setiany et al. (2022), excessive media pressure may encourage companies to be more cautious or even reduce their emissions disclosure to avoid negative scrutiny or public criticism. A similar finding was reported by Ulfa & Ermaya (2019), who discovered that excessive media exposure could lead companies to avoid disclosing information that might harm their corporate image.

Dharma et al. (2024) indicates that profitability increases carbon emission disclosure, especially when environmental performance acts as a moderating variable. Similarly, Nurbaiti & Rahayu (2023); Dharma et al. (2024); Nurbaiti & Rahayu (2023); Resya et al. (2021); Pratiwi et al. (2021) found that profitability is positively associated with the level of carbon emission disclosure in companies. Another study by Hamdiyani (2023) reinforces this finding, showing that profitability significantly enhances carbon emission disclosure, particularly when moderated by managerial ownership. On the other hand, there are also studies that find profitability has a significant negative effect on carbon emission disclosure. Putri & Amin (2022) found that the higher the profitability, the lower the level of carbon emission disclosure, suggesting that more profitable companies tend to disclose less carbon emission information. A similar result was also reported by Claudia (2023), who found a negative influence of profitability on carbon emission disclosure.

Based on Stakeholder Theory Freeman (1984); Mitchell et al. (1997), companies have an obligation to meet the expectations of various stakeholders, including the government. The relationship between media exposure and profitability with carbon emission disclosure is not always consistent, because the influence can vary across companies with different characteristics of stakeholders, consumers, society, and the media. Pressure from these stakeholders encourages companies to increase transparency, especially through carbon emission disclosure. Research conducted by Hapsoro & Falih (2020) shows that company size strengthens the relationship between profitability and firm value, moderated by carbon emission disclosure, suggesting the significant role of company size in this context. Additionally, Efendy et al. (2023); Hapsoro & Falih (2020); Resya et al. (2021) that company size enhances the influence of firm performance variables, including profitability, on the level of carbon emission disclosure. Although it does not directly test the moderating effect between media exposure and carbon disclosure, the study by Setiany et al. (2022) indicates that firm characteristics such as company size affect the extent to which media exposure impacts carbon emission disclosure. Larger firms often have more resources and established systems that enable them to manage and disclose carbon emissions more effectively than smaller firms (Ratmono et al., 2021). Overall, these findings highlight the significant moderating role of company size in the relationship between media exposure, profitability, and carbon emission disclosure. relationship between media exposure, profitability, and carbon emissions disclosure.

This research is developed based on the gaps identified in previous studies regarding the influence of media exposure and profitability on carbon emission disclosure, by introducing company size as a moderating variable. Among the available references, the study by Dharma et al. (2024) is selected as the primary basis for this research. The study showed that profitability positively influences carbon emission disclosure when moderated by environmental performance but did not consider firm characteristics, such as company size, as potential moderators. This research introduces novelty by incorporating company size as a moderating variable, as larger firms with higher visibility, regulatory scrutiny, stakeholder pressure, and greater resources are more likely to disclose carbon information comprehensively than smaller firms. Company size is thus expected to significantly moderate the relationship between media exposure, profitability, and carbon emission disclosure. Another contribution of this study lies in its choice of population, offering new insights into disclosure practices within a high-emission industry context.

This study provides new insights into how internal factors (profitability) and external factors (media exposure), moderated by firm characteristics (company size), influence carbon emission disclosure in a high-emission industry context. Specifically, the study examines sub--mining sub-sector companies listed on the Indonesia Stock Exchange (IDX) during 2019–2023, with an emphasis on testing the moderating effect of company size. Media exposure refers to the extent to which company activities are reported and highlighted in various media platforms, including print, online, and electronic media (Krisnawanto & Solikhah, 2019).

Based on Stakeholder Theory, companies are expected to meet stakeholders' demands for transparency and accountability. Media serves as an external pressure mechanism that heightens public scrutiny of environmental performance, encouraging firms with greater media attention to disclose carbon emissions in order to maintain legitimacy and stakeholder trust (Nurjanah & Mulyandini, 2024). Media exposure has been widely examined as a driver of corporate transparency, particularly in environmental reporting. As an external pressure, media coverage compels companies to disclose their environmental impacts, including carbon emissions. Several studies have shown that media exposure has a significant positive effect on carbon emissions disclosure (Syahdanti & Marietza, 2024). Abdullah et al. (2020) found that media exposure enhances carbon emissions disclosure among companies in Indonesia. Similarly, Aini et al. (2022); Ardillah & Rusli (2022) supported this finding by stating that media coverage encourages companies to be more transparent in disclosing their carbon emissions. Marheni et al. (2025) reinforced the idea that intense media publications increase awareness and pressure on companies to disclose more regarding their carbon emissions. Additionally, studies by Mita & Sulfitri (2023), as well as Nurjanah & Mulyandini (2024), also proved that media exposure contributes positively to the expansion of carbon disclosure practices. Putri & Hermi (2024); Setiany et al. (2022) emphasized that firm characteristics influenced by media exposure lead to higher levels of carbon disclosure. Research by Syafik et al. (2025); Syahdanti & Marietza (2024); Ulfa & Ermaya (2019); Ulupui et al. (2020) also indicated a similar relationship, noting that media pressure can serve as an important external factor driving carbon reporting practices.

H_1: Media exposure has a significant positive effect on carbon emissions disclosure

Profitability reflects a company's ability to generate earnings from its resources (Ardillah & Rusli, 2022). Based on Stakeholder Theory, companies with higher profitability have greater capacity and resources to respond to stakeholders' expectations. One way to respond is through voluntary disclosures such as carbon emission reporting. By disclosing environmental impacts, profitable firms can strengthen their legitimacy and maintain stakeholder confidence. Hence, higher profitability is expected to encourage more extensive disclosure of carbon emissions. Profitability is considered one of the internal factors of a company that contributes to the level of carbon emissions disclosure. Several studies have shown that profitability has a significant positive effect on carbon emissions disclosure. Dharma et al. (2024) found that companies with higher profitability tend to be more transparent in disclosing their carbon emissions as a form of social responsibility and image-building strategy. Similarly, Efendy et al. (2023) showed that profitability encourages companies to expand their carbon disclosure practices due to the availability of greater resources. Hamdiyani (2023) also demonstrated that higher profitability increases a company's tendency to disclose carbon emissions information as part of its sustainability reporting efforts. Furthermore, studies by Hardiyansah & Agustini (2021) reinforced the findings that more profitable companies have stronger incentives to disclose carbon emissions, both to enhance their reputation and to meet stakeholder expectations. Hapsoro & Falih (2020); Kholmi et al. (2020); Putri et al. (2020); Syahdanti & Marietza (2024) also confirmed that profitability positively affects carbon transparency. Emphasized that companies with higher profitability are more motivated to disclose their carbon emissions as part of their efforts to strengthen legitimacy in the eyes of the public and investors. Based on this explanation, the following hypothesis is built:

H_2: Profitability has a significant positive effect on carbon emissions disclosure

Company size represents the scale of operations measured by total assets, sales, or market capitalization (Saraswati et al., 2021). Stakeholder Theory suggests that larger firms, due to greater visibility and stakeholder pressure, are more responsive to demands for transparency. Combined with media attention, larger firms are more likely to disclose carbon emissions to maintain legitimacy. Hence, company size is expected to strengthen the relationship between media exposure and carbon emission disclosure.The relationship between media exposure and carbon emissions disclosure has been found to be influenced by firm-specific characteristics, particularly company size.

Setiany et al. (2022) demonstrated that media exposure positively affects carbon emissions disclosure and that this relationship is moderated by company size. The study found that larger firms, subject to greater media attention and public scrutiny, are more likely to respond to such exposure by increasing the transparency of their carbon emission disclosures. Similarly, Ulupui et al. (2020) found that company characteristics, including size, significantly strengthen the impact of media exposure on carbon emissions disclosure practices. Nurjanah & Mulyandini (2024) also emphasized that companies with larger sizes, when exposed to media pressure, tend to exhibit a higher level of carbon disclosure, particularly when supported by strong environmental performance. Additionally, Syafik et al. (2025) suggested that media exposure interacts with internal firm factors, such as board capital and organizational size, to influence the extent of carbon emissions reporting. Based on this explanation, the following hypothesis is built:

H_3: Media exposure has an effect on carbon emission disclosure moderated by company size

Stakeholder Theory posits that profitable firms are better positioned to meet stakeholder expectations through comprehensive disclosures, including carbon emissions. However, this effect may differ by firm size. Larger, more profitable firms face stronger stakeholder pressure and are thus more likely to disclose environmental impacts than smaller firms. Accordingly, company size is expected to strengthen the relationship between profitability and carbon emission disclosure, highlighting profitability as a key determinant influenced by firm-specific characteristics. Efendy et al. (2023) found that while profitability has a positive impact on carbon emissions disclosure, company size, as a control variable, significantly strengthens this relationship. Larger firms, due to their greater resources and visibility, are more inclined to utilize their profitability to improve environmental transparency, particularly in disclosing carbon emissions. Similarly, Hapsoro & Falih (2020) suggested that company size plays a reinforcing role in the relationship between profitability and disclosure practices, as larger firms tend to face greater stakeholder pressure and have stronger incentives to report their environmental impacts. The findings suggest that company size serves as a key contextual factor that reinforces the positive influence of profitability on carbon emission disclosure. Based on this explanation, the following hypothesis is built:

H_4: Profitability affects carbon emission disclosure moderated by company size

RESEARCH METHODS

This study applies a quantitative research design to examine the effect of media exposure and profitability on carbon emission disclosure (CED) with company size as a moderating variable. The population in this research is a sub-mining manufacturing company listed on the Indonesia Stock Exchange (BEI) in 2019-2023. The data collection techniques that will be used in this study are literature study techniques and observation techniques. based on the results of sampling with purposive sampling method. This study focuses on sub-mining manufacturing companies listed on the Indonesia Stock Exchange (IDX) between 2019 and 2023. The initial sample consisted of 85 companies that were selected based on the relevant criteria (Table 1).

Data were obtained from secondary sources, primarily company annual reports and sustainability reports published on the IDX website and official company websites. The operational definitions are intended to ensure that the research variables can be measured consistently and objectively based on the available data. The variables used in this study consist of carbon emission disclosure as the dependent variable, media exposure and profitability as the independent variables, and company size as the moderating variable. The details of the operational definitions, measurement indicators, and references for each variable are presented in Table 2. The data analysis techniques used in this study include descriptive statistics, coefficient of determination (R^2), path analysis for hypothesis testing, and structural model evaluation (inner model testing) using WarpPLS version 7.0 with the Partial Least Squares Structural Equation Modeling (PLS-SEM) method.

RESULTS AND DISCUSSIONS

Based on the results of secondary data that has been processed in table 3, it can be explained that the media exposure, profitability, company size and carbon emission disclosure have a lower average value than the standard

Table 1. Sampling Criteria

No	Sampling Criteria	Number of Companies
1	Sub-mining manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2019–2023.	85
2	Companies that did not publish complete annual reports during the observation period.	(10)
3	Companies that did not disclose or were irrelevant to carbon emission disclosure.	(11)
4	Final number of companies that meet the research sample criteria	64

Source: IDX Database

Table 2. Operational Definition of Research Variables

Variable	Operational Definition	Measurement / Indicator	Source
Carbon Emission Disclosure (CED)	The extent to which companies disclose information related to carbon emissions in annual or sustainability reports	Measured using disclosure index (checklist of disclosed items), Indicators include: 1. Climate Change: Risks and Opportunities 2. Greenhouse Gas Emissions (GHG) 3. Energy Consumption (EC) 4. Reduction and Cost (RC) – 5. Accountability of Carbon Emissions (AEC)	(Ratmono et al., 2021)
Company Size (FS)	The scale of a company's operations measured by its total assets	Natural logarithm of total assets	(Kholmi et al., 2020)
Media Exposure (ME)	The degree of company exposure in mass media regarding carbon emission information	Dummy variable: 1 = company discloses carbon emission information through website/other media; 0 = no disclosure	Mita Sari & Sulfitri, (2023)
Profitability (ROA)	The company's ability to generate profits from its assets	Return on Assets (ROA) = Net Income ÷ Total Assets	Resya et al., (2021)

deviation, it can be said that there is a spread of data so that there is a level of data deviation due to the high variability of the data between the minimum and maximum value.

Based on the results of the descriptive statistical test in Table 3, the variable Media Exposure has a minimum value of 1.000 and a maximum value of 1.000, with a mean of 0.978 and a standard deviation of 0.149. This indicates that media exposure among the companies is relatively homogeneous. The narrow range of values and low standard deviation suggest that there is little variation in media exposure disclosure. The variable Profitability shows a minimum value of –0.030 and a maximum of 0.212, with a mean of 0.053 and a standard deviation of 0.061. The positive mean indicates that, on average, the sampled companies demonstrate good financial performance, although a few firms reported negative profitability. The relatively low standard deviation suggests that profitability values are not widely dispersed from the mean.

For the variable Company Size, the minimum value is 22.390 and the maximum is 32.063, with a mean of 27.819 and a standard deviation of 3.440. This reflects a considerable variation in company size, meaning that the sample consists of both smaller and larger companies. Meanwhile, the variable Carbon Emission Disclosure has a minimum of 6.000 and a maximum of 16.000, with a mean of 11.660 and a standard deviation of 2.308. This shows that the level of carbon emission disclosure varies significantly among companies. The average value, which falls in the middle of the possible range, indicates that most companies disclose their carbon emissions at a moderate level rather than comprehensively.

Based on the results of the structural model test presented in Table 4, the Average Path Coefficient (APC) is 0.458 with a significance level of $p < 0.001$. An APC value greater than 0.25 indicates that there is a relatively strong relationship among the constructs in the model. Furthermore, the very low significance level ($p < 0.001$) confirms that these relationships did not occur by chance, but have a strong statistical basis. This suggests that the research model used is adequate in explaining the interrelationships among constructs and provides sufficient support for testing the proposed hypotheses.

In addition, the test results show that the Average R-Squared (ARS) is 0.800 with a significance level of $p < 0.001$. This means that, on average, 80% of the variation in the dependent constructs can be explained by the independent constructs in the model, while the remaining 20% is explained by other factors outside the model. The high ARS value indicates that the model has very strong explanatory power and can be categorized as having a good fit in explaining the relationships among constructs.

Meanwhile, the R-Square (R^2) value for the dependent variable Carbon Emission Disclosure is 0.168 with an adjusted R^2 of 0.112 (Figure 2). This implies that the independent variables included in the model are only able

Table 3. Statistical Description

Variable	N	Min	Max	Mean	Standard Deviation
Media Exposure	64	1.000	1.000	0.978	0.149
Profitability		- 0.030	0.212	0.053	0.061
Company Size		22.390	32.063	27.819	3.440
Carbon Emission Disclosure		6.000	16.000	11.660	2.308

Source: WarpPLS processing, (2025)

Table 4. Inner Model Test

Model Indicator	Statistical Parameter	Value
APC (Average Path Coefficient)	Average Path Coefficient	0.458
	P-Value	$p < 0.001$
Average R-Squared (ARS)	Average R-Squared	0.800
	P-Value	$p < 0.001$
R-Square (R^2)	R-Square	0.168
	R-Square Adjusted	0.112

Source: WarpPLS processing (2025)

to explain 16.8% of the variation in carbon emission disclosure, while the remaining 83.2% is influenced by other factors not examined in this study. Thus, even though the overall model is considered feasible and has strong explanatory power (APC and ARS significant), the contribution of the independent variables to the main dependent variable remains relatively limited.

Media Exposure to Carbon Emission Disclosure in the Path Coefficients column is -0.030 (Table 5). The p value of 0.405 is not in accordance with the required $p < 0.050$ and in the t- column so that the first hypothesis (H_1) is rejected. Profitability on Carbon Emission Disclosure in the Path Coefficients column is 0.301. The p value of 0.005 in accordance with the required $p < 0.050$ can be said to be valid as required so that the second hypothesis (H_2) is accepted. The effect of Media Exposure on Carbon Emission Disclosure moderated by company size on Path Coefficients of 0.244. The p value of 0.019 is as required, namely $p < 0.050$ so that the third hypothesis (H3) is accepted. Effect of. Profitability on Carbon Emission Disclosure moderated by company size has Path Coefficients moderated by company size of .063 and a p value of 0.303, so the fourth hypothesis (H_4) is rejected.

The Effect of Media Exposure on Carbon Emission Disclosure

Based on the results of the study, media exposure is found to have no significant effect on carbon emission disclosure (CED), which means that the first hypothesis (H_1) is rejected. Although the coefficient shows a negative sign, the statistical evidence is not strong enough to conclude that media coverage influences disclosure practices. This indicates that the level of media attention, whether high or low, does not determine the extent to which companies disclose their carbon emissions. One possible explanation is that carbon emission disclosure in Indonesia remains largely voluntary, so companies are not necessarily compelled to respond directly to media pressure.

The descriptive statistics further support this result. Media exposure among the sampled companies shows a very narrow range of values (minimum and maximum both equal to 1.000, mean = 0.978, SD = 0.149), indicating that most firms disclose their activities in a relatively similar way. This homogeneity reduces the variability needed to detect a significant statistical relationship. In other words, because almost all companies report their media exposure in a uniform manner, its influence on the variation in carbon emission disclosure becomes negligible.

This finding contrasts with studies such as Nurjanah & Mulyandini (2024) and Putri & Hermi (2024), which found a positive influence of media exposure, but it is consistent with Setiany et al. (2022) and Ulfa & Ermaya (2019), who argue that excessive media exposure can make firms more cautious and even withhold information to protect their corporate image. Therefore, in the context of mining companies in Indonesia, media exposure has not yet become a driving factor for greater transparency in environmental reporting, particularly in relation to carbon emission disclosure.

The Effect of Profitability on Carbon Emission Disclosure

Based on the research results that profitability has a significant positive effect on carbon emission disclosure (CED). This means that companies with better ability to utilize assets to gain financial benefits will disclose carbon emissions. Based on the financially adequate ability, companies that have high profitability are more free to make various types of voluntary disclosures when compared to companies with low profitability. Furthermore, companies with high profitability tend to disclose good news to the financial market. This good news can be in the form of mandatory disclosure or voluntary disclosure such as carbon emission disclosure. Meanwhile, companies with low

Table 5. Hypothesis Test Results

	Path Coefficients	P Values	Result
Media Exposure > Carbon Emission Disclosure	-0.030	0.405	H_1 Rejected
Profitability > Carbon Emission Disclosure	0.301	0.005	H_2 Accepted
Media Exposure*Company Size	0.244	0.019	H_3 Accepted
Profitability*Company Size	0.063	0.303	H_4 Rejected

Source:WarpPLS processing (2025)

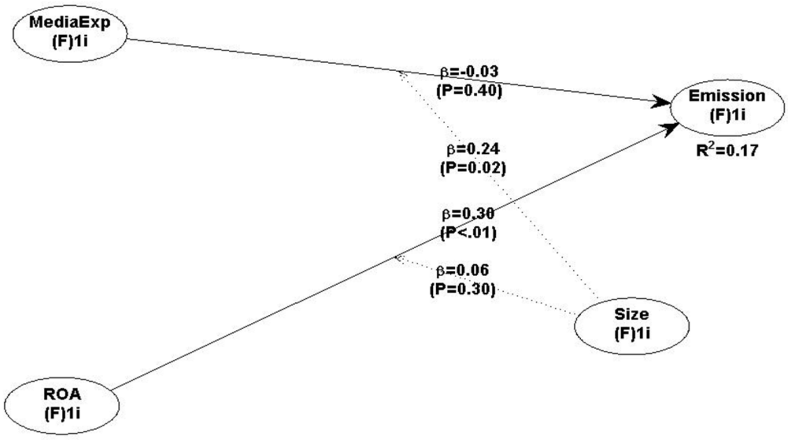

Figure 2. WarpPLS Testing Result

profitability choose to focus more on productive matters such as increasing corporate profits and efficiency rather than making environmental social disclosures because it can increase the company's operational burden.

Based on legitimacy and stakeholder theory, there is a strong indication that the profitability of a company is closely related to the effectiveness of a company's management in terms of managing the profits generated by the company. Companies that have a high level of profit will find it easier to attract the interest of their stakeholders, in this case investors, to obtain funding for the company. So that the company will try to provide better and more complete information to investors and the public to gain legitimacy. This research is in line with Dharma et al. (2024) indicates that profitability increases carbon emission disclosure, especially when environmental performance acts as a moderating variable. Similarly, Nurbaiti & Rahayu (2023) found that profitability is positively associated with the level of carbon emission disclosure in companies. Another study by Hamdiyani (2023) reinforces this finding, showing that profitability significantly enhances carbon emission disclosure, particularly when moderated by managerial ownership.

The Effect of Media Exposure on Carbon Emission Disclosure Moderated by Company Size

Based on the results of the study, the effect of media exposure on carbon emission disclosure (CED) can be moderated by Company Size. According to Stakeholder Theory, companies have a responsibility to meet the needs and expectations of various stakeholder groups, including investors, consumers, employees, local communities and governments. In the context of carbon emissions disclosure, pressure from stakeholders is an important factor influencing companies to be transparent in managing environmental impacts. Media exposure increases a company's visibility in the public eye, which in turn creates pressure from stakeholders to meet expectations for environmental responsibility. As the media pays more attention to issues such as climate change and carbon emissions, companies feel compelled to demonstrate their commitment to sustainability through carbon emission disclosure (CED). However, firms' response to media pressure is often influenced by their capacity to meet these demands. In this case, company size plays a significant mediating role. Company size is a factor that influences the extent to which firms can respond to media pressure and meet stakeholder expectations. Large companies have greater resources, in terms of finance, technology and expertise, to support more comprehensive disclosure of carbon emissions. In addition, large companies are more likely to be under intense media and stakeholder scrutiny due to the wider scale of their operations, which encourages them to be more active in meeting transparency expectations.

This is supported by research from Ulupui et al. (2020) found that company characteristics, including size, significantly strengthen the impact of media exposure on carbon emissions disclosure practices. Nurjanah & Mulyandini (2024) also emphasized that companies with larger sizes, when exposed to media pressure, tend to exhibit a higher level of carbon disclosure, particularly when supported by strong environmental performance. Additionally, Syafik et al. (2025) suggested that media exposure interacts with internal firm factors, such as board capital and organizational size, to influence the extent of carbon emissions reporting.

The Effect of Profitability on Carbon Emission Disclosure Moderated by Company Size

Based on the research results that the effect of profitability on carbon emission disclosure (CED) is not able to be moderated by company size. Based on Stakeholder Theory, companies have a responsibility to meet the needs and expectations of stakeholders, including investors, customers, regulators, and local communities. Company profitability is one of the important factors that influence the company's ability to meet these expectations, especially in terms of carbon emission disclosure (CED) (Dharma et al., 2024). This implies that profitability itself is a more decisive determinant of disclosure practices, regardless of firm size. Profitable firms, whether large or small, generally possess the financial capacity and strategic incentives to engage in sustainability-related disclosures, as they seek to enhance legitimacy and reputation among stakeholders (Dharma et al., 2024). Conversely, unprofitable firms may prioritize operational survival over voluntary disclosures, regardless of their size.

Companies with high profitability tend to have better financial capacity to support sustainability initiatives, such as transparent carbon emission disclosure. In addition, profitable companies usually have a greater incentive to improve their image in the eyes of stakeholders through more complete disclosure of environmental information. Smaller companies with high profitability may face limited resources and operational priorities, making them less able to allocate their profits to full disclosure of carbon emissions. This means that research from Efendy et al. (2023); Claudia (2023) Company size is unable to moderate the influence of profitability on carbon emission disclosure, meaning that the size of a company neither strengthens nor weakens the relationship between profitability and the level of carbon emission disclosure carried out by the company.

CONCLUSIONS

This study concludes that media exposure does not significantly influence carbon emission disclosure (CED), indicating that external attention from the media has not yet become a decisive driver of transparency in mining companies. In contrast, profitability shows a positive and significant effect on CED, suggesting that firms with stronger financial performance are more capable and motivated to disclose environmental information as part of accountability and legitimacy efforts. Furthermore, company size is proven to moderate the relationship between media exposure and CED, meaning that larger firms are more responsive to external pressures due to higher visibility and greater resources. However, company size does not moderate the relationship between profitability and CED, implying that financial capacity itself remains the dominant factor regardless of firm size. These findings align with the research problem and data analysis, confirming that internal resources, particularly profitability, are more influential in shaping disclosure practices than external pressures such as media coverage.

This study has limitations encountered during the research process. Access to company reports was limited because not all firms consistently provided complete and detailed disclosures, thereby narrowing the scope of data that could be analyzed. To address these limitations, future research is recommended to expand access and data sources by combining company reports with external databases or other publicly available information to obtain more comprehensive data, extend the observation period to capture long-term trends, incorporate additional relevant variables to enrich the model, and complement secondary data with primary data collection such as interviews or surveys to gain deeper insights into the motivations and internal constraints that influence corporate carbon disclosure practices.

From a theoretical perspective, this study provides implications for Stakeholder Theory by showing that not all external pressures, such as media exposure, significantly influence corporate transparency in carbon disclosure. The findings suggest that internal factors, particularly profitability, play a more decisive role in driving disclosure practices, while firm size can strengthen the effect of external pressures like media attention. This indicates that stakeholder demands for transparency may only be effective when supported by adequate internal resources and firm characteristics, thus extending the understanding of how companies balance stakeholder expectations with their strategic disclosure decisions.

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