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Women on Board, Environmental Performance, and Climate Change Disclosure under Media Exposure

Rini Kusumawati¹, Imam Hadiwibowor^{2*}, Mochammad Fachrul Riztin³

Faculty of Economics and Business, Universitas Muhammadiyah Cirebon, Indonesia

*Correspondence: E-mail: imam.hadiwibowo@umc.ac.id

ABSTRACT	INFO ARTIKEL
Media exposure is employed as a moderating variable in this study to examine its role in the relationships between women on board, environmental performance, and climate change disclosure. The population of this research comprises companies listed on the IDX in environmentally sensitive sectors during the 2021–2024 period. This quantitative study relies on panel data collected from corporate websites, sustainability reports, and annual reports. Panel data regression and moderated regression analysis were performed using EViews 14 software. The results indicate that environmental performance has a positive effect on climate change disclosure, whereas women on board have no significant effect. In addition, media exposure does not moderate the influence of either women on board or environmental performance on climate change disclosure.	Article History: <i>Submitted/Received 09 June 2026</i> <i>First Revised 18 June 2026</i> <i>Accepted 03 July 2026</i> <i>First Available online 17 July 2026</i> <i>Publication Date 25 August 2026</i> Keyword: <i>Climate Change Disclosure;</i> <i>Environmental Performance;</i> <i>Media Exposure; Women on Board</i>
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1. INTRODUCTION

Climate change is now a global issue that triggers socio-economic shocks across regions (Battiston et al., 2021; Liu et al., 2024), marked by global temperatures in 2011–2020 that were 1.09°C higher than 1850–1900 and the 1.5°C threshold that is soon to be exceeded (Xie et al., 2025), as well as extreme weather such as rising temperatures, floods, droughts, and sea level rise that disrupt health and economic activities (Liu et al., 2024). The impacts include loss of output, reduced investment and employment, and weakened long-term growth, making climate risk a source of systemic financial risk (Battiston et al., 2021; Liu et al., 2024). For companies, these risks operate through physical and transition channels, creating operational risks in the form of asset damage and supply chain disruptions, as well as financial risks in the form of higher debt costs and decreased profitability (Arian & Naeem, 2025; Liu et al., 2024), plus environmental and reputational risks due to a poor environmental track record (Pan et al., 2024; Xie et al., 2025). Stakeholder Pressure for climate transparency are also growing, although disclosure practices are still not uniform (Arian & Sands, 2023; Chithambo et al., 2020).

Indonesia shows a consistent warming trend, marked by an increase in average daily maximum temperature of 0.18°C per decade and daily minimum temperature of 0.30°C per decade from 1983 to 2012 (Supari et al., 2017), accompanied by changes in rainfall patterns and projections of increasingly frequent wet and dry extremes (Kurniadi et al., 2023). BMKG data records that the national average temperature in 2024 will reach 27.52°C with an anomaly of 0.85°C compared to the normal from 1991 to 2020, making it the hottest year in the history of Indonesian meteorological observations. This condition is in line with the dominance of hydrometeorological disasters, which reached 92.1 percent of the total national disaster incidents (Putra et al., 2021), as well as a significant increase in floods, landslides, extreme weather, and forest fires (Ramadhan et al., 2026). Since the energy, transportation, and industrial sectors contribute more than 70 percent of national emissions (Azhari et al., 2025), corporate involvement in mitigation is urgent, although it is still hampered by short-term profit orientation and limited capital (Panjaitan et al., 2023).

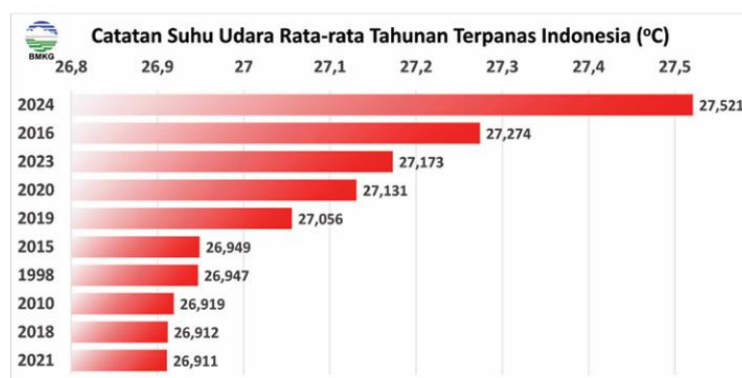


Figure 1. Recorded Average Annual Temperatures in Indonesia
Source: BMKG, 2024

Climate change disclosure is a company's disclosure of Scope 1 to 3 greenhouse gas emissions, climate risks including physical, transition, and litigation risks, governance in the form of board oversight and management roles, mitigation strategies, emission reduction

targets, and environmental policies used to assess and manage climate impacts (Attenborough, 2022; Chithambo et al., 2021; Gebhardt et al., 2024; Ngo et al., 2022). This information is useful for investors and creditors in assessing risk, allocating capital, and reducing funding costs, because better disclosure quality is associated with lower capital costs and reduces the negative impact of emissions on solvency and profitability (Nyakuwanika & Panicker, 2025; Z. Wang et al., 2024). For regulators, disclosure improves comparability, helps identify systemic risks, and designs more appropriate policy interventions, while for the public and other stakeholders, it forms the basis for accountability, trust, and pressure to change corporate behavior (Bui et al., 2020; Gebhardt et al., 2024; Nyakuwanika & Panicker, 2025).

The objects of this research include companies in the Energy, Basic Materials, and Consumer Non-Cyclicals sectors which are categorized as environmentally sensitive sectors (Janik et al., 2020; Månberger et al., 2025). The selection was based on the energy-intensive characteristics of all three, as energy-intensive industries globally contribute approximately 30 percent of final energy consumption and 20 percent of global CO₂ emissions (Diesing et al., 2024; Nurdawati & Urban, 2021). These three sectors are also closely related to the exploitation of natural resources in the form of fossil fuels, metal ores and minerals, as well as forest and agricultural products, resulting in relatively high greenhouse gas emissions (Kamran et al., 2023; Munaro & Tavares, 2023; Sun et al., 2025). Consequently, companies in high-impact sectors face greater stakeholder pressure from institutional investors, regulators, and the public (Gold et al., 2022), while also bearing higher environmental and reputational risks due to environmental controversies and regulatory pressures (Guedes et al., 2026).

Previous research on the determinants of climate change disclosure has shown inconsistencies. Regarding women on boards, several studies in the UK, Canada, and Japan, as well as cross-country samples, found that the proportion of female directors increases the probability and extent of climate disclosure (Ben-Amar et al., 2015; Endo, 2025; Hossain et al., 2017; Liao et al., 2015), while TCFD-based studies and evidence from Turkey found that female representation in aggregate had no direct significant effect (Ararat & Sayedy, 2019; Dias et al., 2024). A similar pattern occurs in environmental performance, as some studies find that better environmental performance leads to greater climate disclosure (Dawkins & Fraas, 2011; Giannarakis et al., 2017; Hassan & Romilly, 2018), while other studies show inconsistent results, with high-emitting companies disclosing more as their performance worsens (Wedari et al., 2021). This inconsistency forms an empirical gap that is relevant to be re-examined.

Previous studies on climate change disclosure have concentrated on examining the direct relationship between women on board and environmental performance and the extent of disclosure, so that conditions that can strengthen or weaken this relationship have not been widely revealed (Dawkins & Fraas, 2011; Giannarakis et al., 2017; Liao et al., 2015). While corporate visibility and public attention have been shown to influence the extent of climate disclosure, the use of media exposure as a moderating variable has rarely been empirically tested (Dawkins & Fraas, 2011; Z. Wang et al., 2024). These limitations are increasingly felt in the context of environmentally sensitive companies in Indonesia, which have not been widely studied through moderation models, even though the effect of governance on disclosure is contextual and influenced by the institutional environment (Alkhawaja et al., 2023; García-Sánchez et al., 2025). Besides that, environmental performance in Indonesian studies is commonly proxied by the ordinal PROPER rating, so this study replaced it with total

greenhouse gas emissions in natural logarithms to make the measurement more objective and sustainable (Wedari et al., 2021).

Different from previous research that more often positions media as a direct influence, this study places media exposure as a moderating variable, considering that its role as an interaction variable is not yet established and the results are still mixed (Febrianto et al., 2022; Octavio & Setiawan, 2024; Zhang et al., 2024). The model constructed also tests two moderating relationships simultaneously, while previous studies generally only examined one interaction relationship in one empirical design (Arora & Aliani, 2023; Endo, 2025; Magdalena et al., 2025). Environmental performance is proxied through greenhouse gas emission levels, not PROPER which is commonly used in Indonesia, so that the measurement is closer to the company's actual environmental burden (Munir & Pratama, 2025; Wahyuningrum et al., 2024). The research sample was focused on environmentally sensitive companies in Indonesia, which are rarely studied (Octavio et al., 2025), with an observation period from 2021 to 2024, which is more recent than the comparative study period (Devina et al., 2026).

This study aims to examine the influence of women on boards on climate change disclosure, considering that the majority of studies found a positive relationship, although the results were not uniform across all contexts (Arora & Aliani, 2023; Ben-Amar et al., 2015; Endo, 2025). The second objective is to examine the influence of environmental performance on climate change disclosure, as better emissions performance tends to encourage companies to disclose their environmental achievements more broadly (Munir & Pratama, 2025; Wahyuningrum et al., 2025). The third and fourth objectives are to examine the role of media exposure in moderating the influence of women on board on climate change disclosure and in moderating the influence of environmental performance on climate change disclosure, considering that media pressure has been proven to increase environmental disclosure but its moderating effect is still mixed and context-dependent, especially in environmentally sensitive sector companies in Indonesia (Octavio & Setiawan, 2025; P. G. K. S. Sari et al., 2026; Syafik et al., 2025; Zhang et al., 2024).

Theoretically, this study extends the application of stakeholder theory in explaining climate change disclosure practices, which views environmental disclosure as a form of corporate dialogue to meet the expectations of powerful stakeholders, by positioning media exposure as a moderator that increases the salience of external stakeholders (Azuma & Higashida, 2024; Cotter & Najah, 2012; Syafik et al., 2025). Empirically, this study provides evidence regarding the influence of board characteristics, company emissions, and media exposure on climate change disclosure, especially since the results of media moderation are still mixed on various board attributes (Febrianto et al., 2022; Liao et al., 2015; Raimo et al., 2025). Practically, the research findings provide input for companies to strengthen board governance and media visibility, for investors to encourage climate transparency through active engagement, for regulators to expand the scope of mandatory reporting, for policymakers to target incentives to climate-sensitive sectors, and for the public to use the media as a catalyst for public pressure (Arian & Sands, 2023; Flammer et al., 2019; Herold et al., 2018; Maji & Lohia, 2025; Octavio & Setiawan, 2024).

The Effect of Women on Board on Climate Change Disclosure

Stakeholder theory views a company as an entity that needs to meet the information needs of various parties that influence and are influenced by its activities (Lock & Seele, 2017). Meeting these needs is also determined by the composition of the board; the presence of

female directors adds diversity of perspectives through more heterogeneous knowledge, professional experience, and opinions (Dias et al., 2024; Nicolò et al., 2021). This diversity strengthens the board's orientation towards stakeholder interests while sharpening sensitivity to social and environmental issues (Amorelli & García-Sánchez, 2020; Nicolò et al., 2021). In line with this, previous studies have found that a higher proportion of female directors is positively associated with both the likelihood and extent of climate disclosure (Ben-Amar et al., 2015; García-Sánchez et al., 2025; Liao et al., 2015).

H1: Women on board have a positive influence on climate change disclosure

The Effect of Environmental Performance on Climate Change Disclosure

Stakeholder theory positions companies as parties that are obliged to communicate the management of the impacts of their activities to various interest groups (Lock & Seele, 2017). Environmental performance reflects the management of operational impacts, so it needs to be communicated to stakeholders as a form of transparency and accountability as well as a means of reducing information asymmetry (Bui et al., 2020; Nyakuwanika & Panicker, 2025; Puspita, 2025). Companies with strong environmental performance tend to voluntarily disclose climate information to signal credibility to the market (Giannarakis et al., 2018; Munir & Pratama, 2025). In line with this, previous research found that better environmental performance has a positive effect on the extent of climate change disclosure (Dawkins & Fraas, 2011; Giannarakis et al., 2017; Puspita, 2025).

H2: Environmental performance has a positive effect on climate change disclosure.

Media Exposure as a Moderator of the Women on Board–Climate Change Disclosure Relationship

Stakeholder theory explains that companies respond to the demands of parties that influence and are influenced by their activities (Lock & Seele, 2017). The presence of female directors increases the board's attention to environmental issues and stakeholder interests (Amorelli & García-Sánchez, 2020; Y. Wang et al., 2020). Meanwhile, media exposure increases the visibility of corporate activities, making companies more vulnerable to stakeholder demands and reputational costs (Peña-Martel et al., 2021), which in turn encourages climate disclosure in response to legitimacy pressures and accountability demands (Octavio & Setiawan, 2025; Zhang et al., 2024). In line with this, previous research found that female directors and media attention work together to strengthen the oversight of corporate environmental behavior (Dan & Wu, 2026).

H3: Media exposure strengthens the positive influence of women on board on climate change disclosure.

Media Exposure as a Moderator of the Environmental Performance–Climate Change Disclosure Relationship

Stakeholder theory positions companies as parties that must respond to the demands of groups that influence and are influenced by their activities (Lock & Seele, 2017). Environmental performance is of concern to stakeholders, while the media disseminates information about the company's environmental impact, thereby triggering public pressure (Sari & Sulfitri, 2023; Syafik et al., 2025; Wu & Memon, 2022). This increased visibility makes companies more vulnerable to stakeholder pressure and reputational costs, thus encouraging management to explain their environmental performance through greater transparency (Octavio & Setiawan, 2024; Syafik et al., 2025). In line with this, previous research has found

that media visibility interacts with environmental performance to drive voluntary climate disclosure (Dawkins & Fraas, 2011).

H4: Media exposure strengthens the influence of environmental performance on climate change disclosure.

2. METHODOLOGY

This study uses a quantitative approach with an explanatory nature, namely testing the influence between variables that have been formulated in the hypothesis (Fransisca et al., 2024; Sherly et al., 2025). Because the observations cover a number of companies over several years, the data used is in the form of panel data so that the unit of analysis is the company-year, not a single company (Salsabila & Adhariani, 2022).

The study population was 328 sensitive sector companies listed on the Indonesia Stock Exchange during the 2021–2024 period, covering the Energy, Basic Materials, and Consumer Non-Cyclicals sectors, which are consistent with previous studies as the largest emitters and relevant in carbon and sustainability disclosure analysis (Cahyani et al., 2025; Fransisca et al., 2024). The sample was determined through purposive sampling, because company screening was based on substantive criteria and data availability, not random selection (Citra & Sastradipraja, 2025; Wahyuningrum et al., 2024).

Regression Model 1:

$$CCD = \alpha + \beta 1WOB_{it} + \beta 2EP_{it} + \beta 3ROE_{it} + \beta 4LEV_{it} + \beta 5SIZE_{it} + e$$

Regression Model 2:

$$CCD = \alpha + \beta 1WOB_{it} + \beta 2EP_{it} + \beta 3ME_{it} + \beta 4(WOB_{it} \times ME_{it}) + \beta 5(EP_{it} \times ME_{it}) + \beta 6ROE_{it} + \beta 7LEV_{it} + \beta 8SIZE_{it} + e$$

Table 1. Criteria Sample

No	Criteria	Total
1	Sensitive sector companies listed on the IDX for the 2021-2024 period	328
2	Sensitive sector companies that did not publish annual reports consecutively during the 2021–2024 period	(76)
3	Sensitive sector companies that did not publish sustainability reports consecutively during the 2021–2024 period	(73)
4	Sensitive sector companies that did not disclose climate change consecutively during the 2021–2024 period	(60)
5	Companies that do not have complete data related to the research variables used consecutively during the 2021–2024 period	(84)
Number of sample companies that meet the criteria		35
Total observations used 34 x 4 years		140

Data analysis begins with descriptive statistics to provide an overview of the characteristics of the research data before regression estimation is carried out. The next stage is selecting the best panel data model among the Common Effect Model, Fixed Effect Model, and Random Effect Model through the Chow test, Hausman test, and Lagrange Multiplier test if necessary. The selected model was then tested using multicollinearity and heteroscedasticity tests as part of the classical assumptions, followed by a model feasibility test using the F test and

coefficient of determination (R^2 /Adjusted R^2) to assess the explanatory power of the model (Nwakuya & Ijomah, 2021). Hypothesis testing was carried out using a t-test at a significance level of 5%, while Moderated Regression Analysis was used to test the moderating effect through the formation of interaction terms (Puspitasari et al., 2024).

Table 2. Variable Operational Definition

Variable	Definition	Measurements
Climate Change Disclosure (CCD)	Climate change disclosure is the disclosure of information related to climate change that reflects a company's efforts to manage environmental risks and communicate climate initiatives to stakeholders (Butar Butar et al., 2025). This variable is measured using the CCDI based on the GRI 305: Emissions indicator, with a score of 1 for disclosed items and 0 for undisclosed items.	$CCDI_{i,t} = \frac{\sum_{j=1}^7 score_j}{Maxscore}$ (Asare et al., 2022)
Women On Board (WOD)	Proportion of women who are members of the board of directors in companies	WOD = Number of female directors / Total number of directors on the board (Charumathi & Rahman, 2019)
Environmental Performance (EP)	Environmental performance is measured using the natural logarithm of a company's total greenhouse gas (GHG) emissions, expressed in kilograms. This measure is used to illustrate the environmental impact of a company's operational activities. The lower a company's greenhouse gas emissions, the better its environmental performance.	EP = The logarithm of the company's GHG emissions (in kg) (Braam et al., 2016)
Media Exposure (ME)	Media exposure is a means of conveying company information to stakeholders, including information related to environmental responsibility and climate change. This variable is measured using a media exposure index based on the company's website, annual report, and sustainability report, with a score of 1 if it discloses climate change information and 0 if it does not. The maximum score is 3	$ME = \frac{\sum xi}{M}$ Information: ME = Media Exposure xi = Number of media used for reporting M = 3 types of reporting media (AR, SR, Web) (Fitriyani & Sulfitri, 2025)
Profitability (ROE)	Profitability is an important indicator to assess a company's ability to generate profits and create value for shareholders.	ROE = Net Profit / Total Equity (Nathalia & Setiawan, 2022).
Leverage (DAR)	Leverage is an indicator used to assess the level of a company's dependence on funding from debt.	DAR = Total Debt / Total Assets (Nathalia & Setiawan, 2022).

Firm Size (SIZE)	Company size is an indicator used to measure the scale or size of a company.	SIZE = Ln (Total Aset) (Octavio & Setiawan, 2024)
Firm Age (AGE)	Company age is the length of time the company has been operating since its founding year to the year of research.	Number of years since the company was founded. (Mahboub, 2025)

3. RESULTS AND DISCUSSION

Table 3. Statistic Descriptive

Variables	Obs	Mean	Std. Deviation	Min	Max
CCD	140	0.647959	0.212245	0.142857	1.000000
WOB	140	0.285404	0.134407	0.066667	0.750000
EP	140	19.09509	2.076251	13.76168	22.95864
ME	140	0.635714	0.242873	0.333333	1.000000
ROE	140	0.175868	0.290852	-0.619557	1.567368
LEV	140	0.459491	0.199610	0.097914	1.000000
SIZE	140	21.11420	5.079484	14.38175	29.35444
AGE	140	37.58571	18.75130	10.00000	95.00000

Source: Data Proses, 2026

Table 3 reports the descriptive statistics for all variables, including CCD, WOB, EP, ME, ROE, leverage, firm size, and firm age. The mean CCD of 0.6479 indicates that climate change disclosure among sample firms is relatively higher than in previous Indonesian studies. WOB averages 0.2854, reflecting moderate board gender diversity, while EP (19.0951) and ME (0.6357) suggest considerable environmental performance and media attention. The standard deviation and min-max ranges reveal substantial variation across firms, confirming that the sample is not homogeneous.

Table 4. Estimation for Panel Regression Model Selection

Model 1				
Test	Hypothesis	Statistic	P-Value	Model
Chow	H0: Common Effect Model (CEM) H1: Fixed Effect Model (FEM)	12.273557	.0000	FEM
Hausman	H0: Random Effect Model (REM) H1: Fixed Effect Model (FEM)	31.496405	.0000	FEM
Model 2				
Test	Hypothesis	Statistic	P-Value	Model
Chow	H0: Common Effect Model (CEM) H1: Fixed Effect Model (FEM)	8.802262	.0000	FEM
Hausman	H0: Random Effect Model (REM) H1: Fixed Effect Model (FEM)	35.440778	.0000	FEM

Source: Output E-views 14 (2026)

Based on Table 4, the Chow test and the Hausman test on Model 1 each produced statistical values of 12.27355 and 31.49640 with a p-value of 0.0000, so H0 was rejected and the selected model was the Fixed Effect Model (FEM). A similar pattern occurs in Model 2,

with a Chow statistic of 8.802262 and a Hausman statistic of 35.44077, both significant at a p-value of 0.0000. Thus, FEM is the best estimation model for both panel regression models.

Table 5. Multicollinearity Test Model 1 and Model 2

	Model 1	Model 2
	VIF	VIF
C	NA	NA
WOB	1.532941	1.585663
EP	1.416935	1.872750
ME	-	1.388513
WOB×ME	-	1.447400
EP×ME	-	1.654986
ROE	1.416459	1.508050
LEV	1.187335	1.240855
SIZE	1.146259	1.271689
AGE	1.452251	1.517054

Source: Output E-views 14 (2026)

Based on Table 5, the results of the multicollinearity test show that all independent variables in Model 1 and Model 2 have VIF values below 10. These values indicate that there are no serious symptoms of multicollinearity between the independent variables in both models, so that the panel regression model used is suitable for further interpretation without fear of bias due to correlation between the independent variables.

Table 6. Heteroscedasticity Test for Model 1

Dependent Variable: ABS(RESID)

	Coeff.	Std. Error	t-Statistic	Prob.
C	-.658149	.593114	-1.109651	.2698
WOB	.020845	.068268	.305340	.7607
EP	-.000496	.007597	-.065253	.9481
ROE	.029578	.036159	.818012	.4153
LEV	-.090359	.048688	-1.855875	.0664
SIZE	.033906	.028777	1.178235	.2415
AGE	.001327	.003344	.396924	.6923

Source: Output E-views 14 (2026)

Table 7. Heteroscedasticity Test for Model 2

Dependent Variable: ABS(RESID)

	Coeff.	Std. Error	t-Statistic	Prob.
C	-.943801	.627358	-1.504406	.1358
WOB	.068093	.068690	.991303	.3240
EP	-.004374	.007582	-.576914	.5653
ME	-.030014	.026855	-1.117602	.2665
WOB×ME	-.108942	.194140	-.561151	.5760
EP×ME	-.015155	.016223	-.934113	.3526
ROE	.034540	.037700	.916185	.3619
LEV	-.095085	.049629	-1.915918	.0584
SIZE	.053776	.031404	1.712368	.0901
AGE	-4.21E-05	.003674	-.011463	.9909

Source: Output E-views 14 (2026)

The heteroscedasticity test results from Table 6 and Table 7 confirm that both models are free from this issue. In Model 1, all six variables, WOB, EP, ROE, LEV, SIZE, and AGE, show p-values above 0.05 (0.7607, 0.9481, 0.4153, 0.0664, 0.2415, and 0.6923, respectively), while in Model 2, all nine variables including the interaction terms also exceed the 0.05 threshold, with values of 0.3240, 0.5653, 0.2665, 0.5760, 0.3526, 0.3619, 0.0584, 0.0901, and 0.9909. Although LEV and SIZE in Model 2 are relatively close to 0.05, both remain above it. These findings indicate that no variable significantly influences the absolute residuals in either model, meaning both Model 1 and Model 2 are free from heteroscedasticity and fully satisfy the homoscedasticity assumption required for panel regression analysis.

Table 8. R test of Models 1 and Models 2

	Model 1	Model 2
R-squared	.821005	.825435
Adjusted R square	.748684	.747244
F-statistic	11.35221	10.55669
Prob (F statistic)	.000000	.000000

Source: Output E-views 14 (2026)

Based on Table 8, Model 1 and Model 2 have R-squared values of 0.821005 and 0.825435, indicating that the independent variables explain approximately 82% of the variation in the dependent variable. The adjusted R-squared values of 0.748684 and 0.747244 confirm the models' explanatory power. Furthermore, the F-statistic probabilities of 0.000000 in both models indicate that the models are significant overall and appropriate for explaining the relationships among the variables.

Table 9. Panel Data Regression Test

	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.060682	1.669413	-.635363	.5267
WOB	.144493	.192152	.751969	.4539
EP	.044753	.021383	2.092915	.0389
ROE	-.143419	.101775	-1.409173	.1619
LEV	.246771	.137040	1.800726	.0748
SIZE	-.050953	.080997	-.629072	.5308
AGE	.047904	.009412	5.089525	.0000

Source: Output E-views 14 (2026)

Based on Table 9, the results of the panel data regression show that of all independent variables, only EP and AGE have a significant effect on the dependent variable, with coefficient values of 0.044753 (probability 0.0389) and 0.047904 (probability 0.0000), respectively. Meanwhile, the variables WOB, ROE, LEV, and SIZE do not show a significant influence, because their probability values are above 0.05. These findings indicate that environmental performance and company age are more dominant determining factors than other variables in influencing the dependent variable in this model.

Table 10. Moderated Regression Analysis

	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.573956	1.778586	-.884948	.3784
WOB	.154686	.194740	.794321	.4290
EP	.044170	.021497	2.054728	.0426

ME	.066912	.076136	.878847	.3817
WOB x ME	-.497623	.550395	-.904120	.3682
EP x ME	-.052641	.045994	-1.144517	.2553
ROE	-.192745	.106880	-1.803367	.0745
LEV	.238333	.140701	1.693899	.0935
SIZE	-.015844	.089033	-.177958	.8591
AGE	0.041459	0.010415	3.980480	0.0001

Source: Output E-views 14 (2026)

Based on Table 10, the results of the moderated regression analysis show that EP and AGE have a significant effect on the dependent variable, with coefficients of 0.044170 (probability 0.0426) and 0.041459 (probability 0.0001), respectively. Meanwhile, the variables WOB, ME, ROE, LEV, and SIZE do not show a significant influence because their probability values are above 0.05. Furthermore, the moderating variables WOB x ME and EP x ME are also insignificant, with probabilities of 0.3682 and 0.2553 respectively, which indicates that media exposure does not strengthen the influence of women on board or environmental performance on the disclosure of dependent variables in this model.

DISCUSSION

The Effect of Women on Board on Climate Change Disclosure

Stakeholder theory emphasizes that companies need to respond to stakeholders' information needs regarding environmental impacts and climate change (Cahyono et al., 2024), but does not explicitly require the presence of women on boards as the primary channel for fulfilling these needs. The average proportion of women, which is only 28.54%, shows that this representation has not reached critical mass, namely the threshold when the presence of minority groups begins to have a substantive influence on company policies (Charumathi & Rahman, 2019; Rahmani et al., 2025). Until that threshold is reached, female directors tend to be in symbolic positions, so their capacity to drive the strategic agenda, including climate disclosure, remains limited even if they formally have a seat on the board. Moreover, climate disclosure practices in Indonesia are driven more by external pressures, such as regulations, investor expectations, and market demands, than by the gender composition of the board, and this condition actually strengthens the essence of stakeholder theory itself. Thus, the influence of female directors on climate disclosure is conditional, depending on authority, active involvement, and governance support, rather than simply numerical presence, in line with García-Sánchez et al. (2025) and Amira et al. (2024).

The Effect of Environmental Performance on Climate Change Disclosure

Companies with better environmental performance tend to disclose climate change-related information more transparently. This condition is in line with stakeholder theory, which emphasizes that companies need to meet the information needs of various stakeholder groups through disclosure of environmental impacts and efforts to address climate change (Lu & Wang, 2020; Widarjo et al., 2024). This disclosure is also a response to stakeholder expectations as well as a strategy to strengthen the company's reputation, build trust, and demonstrate a long-term commitment to sustainability (Yan et al., 2025). Additionally, superior environmental performance generally reflects stronger environmental management practices, giving companies greater confidence and credibility in communicating climate-related initiatives and achievements. This consistency between environmental actions and

disclosure practices strengthens the reliability of sustainability reporting, in line with the findings of Lu & Wang (2020), Widarjo et al. (2024), and Puspita (2025).

The Effect of Women on Board on Climate Change Disclosure with Media Exposure as a Moderating Variable

The media has not been able to strengthen the role of women on boards of directors to encourage disclosure of climate change. From a stakeholder theory perspective, the media does play an important role in disseminating information that shapes stakeholders' awareness and expectations regarding corporate transparency (Nicolò et al., 2021), but the amount of media attention does not necessarily increase the contribution of female directors, because their effectiveness is determined more by internal governance mechanisms than external visibility (Zampone et al., 2022). This condition is also influenced by the still low representation of women in the council, so that their capacity to respond to or utilize external pressure from media coverage is limited (Endo, 2025). Additionally, media coverage generally focuses on broader company issues, such as financial performance, operational activities, and governance, rather than specifically highlighting gender diversity or climate change, thus providing less incentive for female directors to influence climate disclosure decisions. This finding is in line Octavio et al. (2025), Tahat and Hassanein (2024), and Zampone et al. (2022), which emphasize that women's contribution on boards to sustainability disclosure is more determined by decision-making authority, participation in the board, and the effectiveness of internal governance, rather than by external information pressure alone.

The Effect of Environmental Performance on Climate Change Disclosure with Media Exposure as a Moderating Variable

Good environmental performance has not been enough to encourage more transparent disclosure of climate change, even though it has received widespread media coverage. According to stakeholder theory, the media should function as an external pressure mechanism that encourages companies with good environmental performance to increase the transparency of their climate disclosures to meet public expectations. However, these findings suggest that the media, as a secondary stakeholder, has not effectively bridged actual environmental performance with corporate disclosure decisions, in line with Abdullah et al. (2020), Utami et al. (2026) and Yanto et al. (2025) who found that in developing countries, the media has not consistently encouraged companies to integrate environmental performance into broader climate disclosure practices. This condition indicates that media pressure is still not strong enough to influence corporate climate disclosure behavior, especially because media attention is still more focused on general financial and operational issues rather than specific environmental issues. The effectiveness of media as a mechanism of external pressure is also greatly influenced by the level of public environmental awareness and the maturity of a country's media ecosystem (Wicaksono & Setiawan, 2023; Wu & Memon, 2022). Consequently, as long as climate change issues have not become a major focus of public reporting, companies with strong environmental performance tend to continue disclosing climate information based on internal commitments and the demands of key stakeholders, rather than the level of media exposure they receive (Xue et al., 2021).

4. CONCLUSION

The results of this study indicate that the presence of women on the board of directors has not been able to significantly encourage improvements in climate change disclosure practices

in the companies studied. In contrast, environmental performance has been shown to play a significant role in driving climate change disclosure, indicating that companies with better environmental practices tend to provide more detailed climate-related information to their stakeholders. Moreover, media exposure did not strengthen the influence of either the presence of women on boards or environmental performance on climate change disclosure. This finding confirms that the role of the media is not yet strong enough to strengthen the contribution of corporate governance characteristics and environmental performance in encouraging more transparent climate disclosure practices. This study still has limitations, especially in terms of the number of samples, observation period, and variables used. Therefore, further research is recommended to expand the scope of analysis to other industrial sectors and extend the observation period, in order to obtain a more comprehensive picture of the factors influencing climate change disclosure. In addition, future research could also consider adding other relevant variables, such as the existence of a sustainability committee, institutional ownership, regulatory pressure, or other company characteristics that could potentially influence climate change disclosure practices. These efforts are expected to provide a deeper understanding of the determinants of climate change disclosure in the context of companies in Indonesia.

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