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CORPORATE ATTRIBUTES AND ENVIRONMENTAL INFORMATION DISCLOSURE OF LISTED NON-FINANCIAL FIRMS IN NIGERIA

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Abstract

This study examined the relationship between corporate attributes and environmental information disclosure of listed non-financial firms in Nigeria. Relevant research questions and hypotheses were developed based on three specific objectives. Measures of corporate attributes examined in this research include board structure (size, independence and diligence), board committee gender diversity (audit committee gender, remuneration committee gender and risk management committee gender) and firm heterogeneity (measured by the sectoral differences of firms). The financial statements of 75 listed non-financial firms served as the source of the secondary data (covering a 10 years period - 2014 to 2023) that was gathered and analyzed in the course of this study. Logistic regression analysis was employed to test the hypotheses, and the results revealed that board committee gender diversity and board structure significantly impact environmental information disclosure with a Wald chi2 value of 10.79 and 24.98, respectively, with corresponding p-values of 0.0129 and 0.0000, respectively. In addition, with a Wald chi2 value of 13.32 alongside a corresponding p-value of 0.0011, firm heterogeneity was found to exert significant influence on the relationship between corporate attributes and environmental information disclosure of listed non-financial firms in Nigeria. Given these outcomes, the study recommends that policymakers and regulators should take into consideration the unique characteristics of different firms across identifiable sectors while developing and revising disclosure policies and frameworks related to environmental practices. Similarly, entities should take cognizance of their respective individual firm-specific factors when developing environmental disclosure policies, strategies, and practices.

1.0 Introduction

Environmental Information Disclosure (EID) has garnered increasing attention globally as stakeholders demand greater transparency regarding firms' environmental impacts. This is especially pertinent in Nigeria, where

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environmental degradation most notably in sectors such as oil and gas, carries profound socioeconomic consequences for host communities. Despite its importance, EID in Nigeria remains largely voluntary, resulting in inconsistent disclosure practices driven primarily by managerial discretion due to the absence of statutory reporting requirements. Prior studies (Chijoke-Mgbame & Mgbame, 2018) identified firm characteristics, such as size, age, financial performance, and resource availability, as significant determinants of EID. Larger, older, and more profitable firms tend to disclose more environmental information, often as a strategy to maintain legitimacy, mitigate political costs, and satisfy stakeholder expectations (Osazuwa, Okoye & Izedonmi, 2013).

This study builds on the extant literature by extending the focus beyond firm size to examine how additional corporate attributes, including board structure, gender diversity in both board and audit committees, and firm heterogeneity, correlate with the extent of EID among listed non-financial firms in Nigeria. Emerging research has underscored the value of gender diversity in driving sustainability-oriented governance, performance, corporate strategies, etc., as diverse boards and committees are believed to be more transparent and effective reporting practices and organizational outcomes (Jeroh, 2020; Yusuf, Dasawaty, Esra, Apriwenni, Meiden & Fahlevi, 2024). Likewise, board characteristics such as independence and the presence of environmental committees enhance EID quality through improved oversight and accountability (Issa, Yunusa & Hamman, 2021).

However, despite growing awareness, several systemic challenges continue to inhibit widespread and standardized EID adoption in Nigeria. These include a lack of regulatory compulsion, inadequate awareness and the near absence of generally acceptable metrics of EID drivers, and weak enforcement mechanisms. Although there has been a growing global advocacy for corporate environmental responsibility, EID among Nigerian firms remains largely inconsistent and voluntary, primarily due to the absence of mandatory reporting frameworks. Considering these challenges, Owolabi (2010) advocated a combination of regulatory intervention and stakeholder sensitization to promote better disclosure practices. Aligned with this view, the current study provided empirical insight into how selected corporate attributes influence EID practices, with the goal of informing policy and promoting more consistent and transparent environmental reporting across Nigeria's corporate sector. This study explores how corporate attributes such as board composition and board gender diversity influence EID among listed non-financial firms in Nigeria. Previous research highlights that larger firms, due to their visibility and available resources, tend to disclose more environmental information to maintain their public image and meet stakeholder expectations.

This research further considers the heterogeneous nature of Nigerian firms in terms of industry, size, and ownership, noting that these variations influence disclosure practices. The current study assumes that firms in high-impact industries or with foreign/public ownership may often be more transparent due to stakeholder scrutiny and regulatory expectations and, therefore, may pay more attention to environmental concerns. This study, which covered a 10-year period (2014–2023), adopted the longitudinal approach to assess how the identified corporate attributes affect EID over time, contributing significantly to the broader discourse on corporate accountability and sustainability in emerging markets.

Given the above, this research advanced the following hypotheses:

H$_O$1: *Board committee gender diversity has no significant effect on the environmental information disclosure of listed nonfinancial firms in Nigeria.*

H$_O$2: *The board structure has no significant influence on the environmental information disclosure of listed nonfinancial firms in Nigeria.*

H$_O$3: *Firm heterogeneity has no significant effect on the relationship between corporate attributes and environmental information disclosure of listed nonfinancial firms in Nigeria*.

2.0 Literature Review

2.1 Environmental Information Disclosure

Environmental Information Disclosure (EID) refers to the process by which firms communicate environmental practices, impacts, and sustainability efforts to stakeholders. Globally, EID has become an essential component of corporate accountability, yet in Nigeria, it remains largely voluntary because of the absence of mandatory reporting frameworks. Firms often disclose environmental information based on internal motivations or external pressures, particularly from foreign investors or parent companies.

Prior studies, such as Chijoke-Mgbame and Mgbame (2018), identified firm-specific variables such as size, financial performance, and firm age as significant determinants of EID. However, this voluntary approach has been criticized for producing inconsistent and selective reporting because companies tend to highlight only favorable environmental activities. Larger corporations, especially in environmentally sensitive sectors such as oil and gas, are generally more inclined to disclose environmental information to maintain legitimacy and manage stakeholder perceptions (Awad-Allah, Nowar & Mahfouz, 2024; Owolabi, 2010). Despite these tendencies, the overall quality of environmental disclosure in Nigeria is low. Research shows that such disclosures are often non-standardized, largely qualitative, and lack quantifiable data, which limits their usefulness to stakeholders (Innocent et al., 2014; Yusuf et al., 2016).

Several drivers of EID have been identified, including external pressure from stakeholders, the presence of independent boards and the inclusion of environmental committees within governance structures. Issa, Yunusa and Hamman (2021) found that strong corporate governance correlates positively with more comprehensive EID practices. However, major barriers such as the lack of legal requirements, low awareness, and the perception of EID as a cost rather than a value-adding activity hinder widespread disclosure of environmental activities and concerns in Nigeria and several other developing economies.

2.2 Corporate Attributes

Corporate attributes are the defining features that shape a company's structure, strategic orientation, and operational behavior. These include elements such as firm size, profitability, capital structure, board composition, ownership structure, and governance mechanisms. Collectively, these factors determine how a company is governed, how it performs financially, and how it positions itself in the marketplace. Key corporate attributes such as board independence and the existence of specialized committees play a critical role in promoting transparency and accountability, particularly in relation to corporate outcomes (Jeroh, 2020a; Jeroh, 2020b; Ukolobi & Jeroh, 2020) and, by extension, environmental information disclosure (EID). By understanding these attributes, stakeholders like investors, regulators, and analysts can better evaluate a firm's commitment to sustainability, its risk profile, and its adherence to regulatory and ethical standards.

2.3 Board Structure and Environmental Information Disclosure

Research on the link between environmental information disclosure (EID) and board structure is vital, particularly in developing countries like Nigeria, where governance practices vary widely. Board structure is measured by reference to variables such as size, independence, diversity, ownership, and the presence of environmental committees. (Jeroh, 2018, Ideh, Jeroh & Ebiaghan, 2021; Sinebe & Jeroh, 2023; Ogieh & Jeroh, 2023; Ohre & Jeroh, 2024; Obiora & Jeroh, 2024). These variables significantly influence a company's activities and several outcomes (environmental reporting inclusive). Larger boards tend to offer broader expertise and better oversight, leading to more robust environmental disclosures, while board independence promotes accountability and transparency. Board diversity, especially gender inclusion, enhances environmental responsiveness because diverse perspectives drive more comprehensive stakeholder engagement. The establishment of specialized environmental committees strengthens EID by ensuring focused attention to environmental issues. However, external pressure from regulators and stakeholders, particularly in high-impact industries such as oil and gas, also play a critical role in shaping EID practices. Overall, effective corporate governance underpinned by well-structured and ethically driven boards is essential for improving the quality and consistency of environmental disclosures in Nigerian firms.

2.4 Board Committee Gender Diversity and Environmental Information Disclosure

The relationship between committee gender diversity and environmental information disclosure (EID) is an emerging area of research in Nigeria, particularly as firms face increasing pressure to demonstrate environmental accountability. Gender diversity, defined as the presence of women on corporate committees, such as audit and environmental committees, has been shown to positively influence the quality and extent of EID. Studies by Fodio and Oba (2012) and Adegboye, Ojeka, Alabi, Alo, and Aina (2020) revealed that gender-diverse committees are more likely to promote transparency, accountability, and a stronger commitment to environmental issues. Women on these committees bring unique perspectives and are often more attuned to stakeholder concerns, leading to more proactive and comprehensive disclosures. Jibril, Isa and Maigoshi (2022) further emphasized that gender-diverse environmental committees are particularly effective in developing detailed energy disclosure policies, enhancing corporate responsiveness to environmental challenges.

Beyond improving disclosure quality, gender diversity in corporate committees also boosts organizational reputation and stakeholder trust. Tingbani, Chithambo, Tauringana and Papanikolaou (2020) found a significant positive relationship between gender diversity and greenhouse gas disclosures among London-listed firms, suggesting parallels in the Nigerian context. However, achieving gender diversity remains a challenge in Nigeria because of longstanding systemic and cultural barriers. Odum (2023) argued for intentional policy interventions, including gender quotas and career development initiatives, to promote female representation in strategic corporate roles. Increasing gender diversity is not only a matter of equity but also a strategic imperative for strengthening corporate environmental sustainability and governance.

2.5 Conceptual Model

Independent Variables

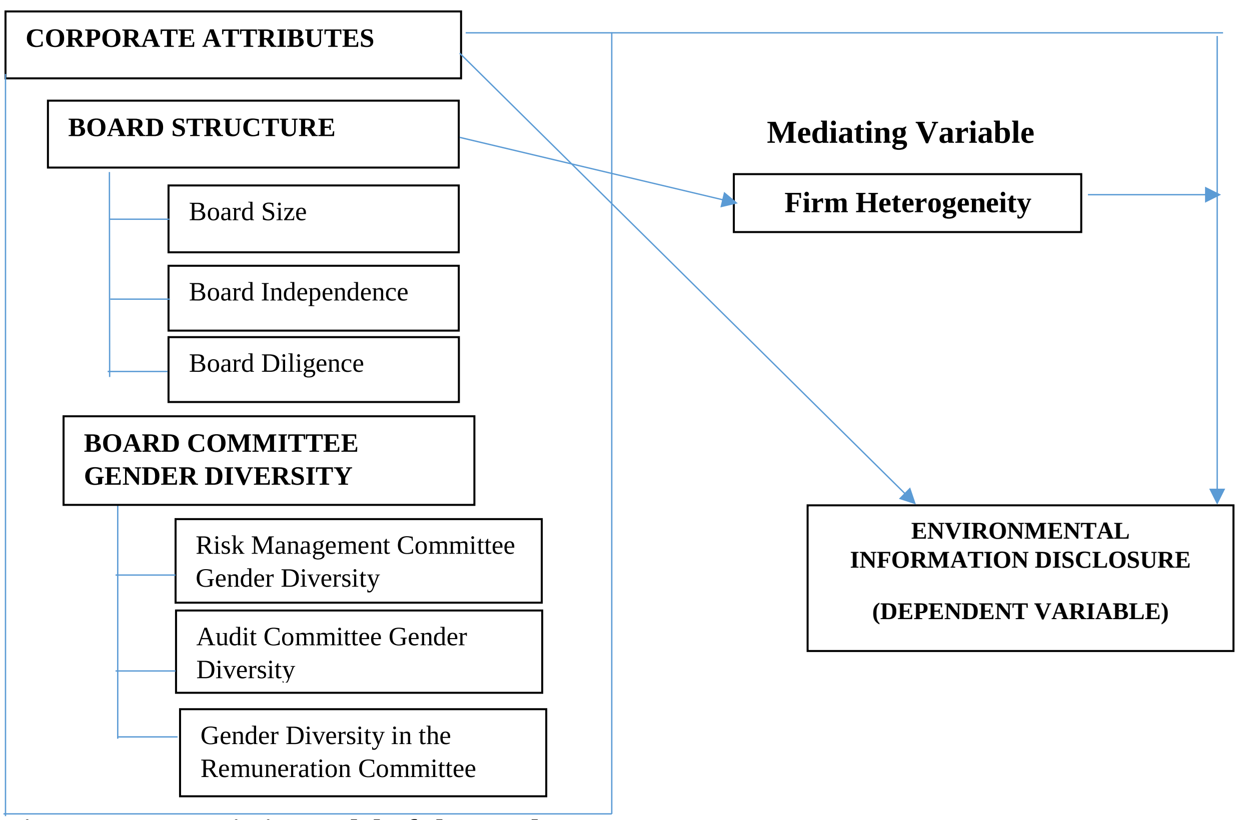

Figure 2.1: Heuristic Model of the Study

Source: Researchers' Conceptualization, 2025

2.6 Theoretical Framework

2.6.1 Stakeholders' Theory

The stakeholder theory emphasizes that companies have obligations not only to shareholders but also to various stakeholders, including employees, communities, and regulators. In the context of environmental information disclosure (EID) in Nigeria, this theory underscores the importance of transparency and accountability in corporate environmental practices. Stakeholder pressure significantly influences firms to disclose environmental information, with profitability playing a key role in a firm's ability to meet these expectations. Profitable firms are generally more capable of funding environmental initiatives and comprehensive reporting, which can improve stakeholder trust and corporate reputation. However, due to the voluntary nature of EID in Nigeria, there is considerable variation in disclosure practices, and firms often use EID strategically to shape stakeholder perceptions.

Corporate attributes also play a pivotal role in reinforcing stakeholder theory's application to EID. Elements such as board independence and the establishment of environmental committees can significantly enhance disclosure quality. For example, firms in Nigeria's oil and gas sector face intense scrutiny from stakeholders but often fall short in environmental transparency despite having the resources to do better. This gap reveals the need for stronger alignment between profitability, stakeholder expectations, and environmental accountability. Policymakers and firms alike can leverage stakeholder theory to improve EID practices by introducing mandatory reporting standards and integrating financial with non-financial reporting. Overall, stakeholder theory provides a valuable lens through which to understand how corporate attributes, governance, and external pressures intersect to shape EID in Nigeria.

2.7 Empirical Review

Ezhilarasi and Kabra (2017) explored the impact of corporate governance on environmental disclosures in India by focusing on board structure and ownership types. Using panel data regression on 177 highly polluting firms over six years, the study found that foreign institutional ownership was the most significant driver of environmental disclosure. Firm size and environmental certifications were positively associated with higher levels of disclosure.

Odoemelam and Okafor (2018) analyzed the role of board characteristics in environmental disclosure among non-financial firms on the Nigerian Stock Exchange. Using OLS regression and content analysis, the study observed that board independence, board meetings, and environmental committees significantly enhanced disclosure levels. However, board size and audit committee independence had no significant effects, suggesting weaknesses in Nigeria's institutional and legal framework for environmental practices.

Abubakar and Moses (2020) assessed the relationship between corporate governance attributes and environmental disclosure among Nigerian manufacturing companies. Their regression analysis over a seven-year period revealed that the presence of independent directors positively influenced environmental disclosure, while other characteristics like foreign directors and educational background had positive but statistically insignificant effects.

Jeroh (2020a) conducted two studies. The study first examined the connection between corporate social responsibility (CSR) disclosure and financial performance in the Nigerian financial sector. Using structural equation modeling, we found that firm performance, value, and capital structure significantly influence CSR disclosure. The second study used multivariate regression to analyze how corporate attributes predict firm value. Results showed that return on assets and earnings per share consistently correlated with higher firm value, while other attributes showed mixed effects.

Okere, Rufai, Okeke, and Oyinloye (2021) focused on how board characteristics affect environmental information disclosure among Nigerian manufacturing firms. Through ordinary least squares regression, the study found that board independence and the inclusion of foreign directors significantly improved disclosure practices, suggesting that stronger board structures enhance accountability.

Moshud, Sani, and Olanrewaju (2021) evaluated the impact of firm size on environmental disclosure among Nigerian listed firms. Using Binary Logistic Regression, they found a statistically significant positive relationship between firm size and environmental disclosure, indicating that larger firms are more likely to disclose environmental information compared to smaller ones.

Adelowotan and Udofia (2021) examined the adoption of Integrated Reporting (IR) and its relationship with corporate attributes among Nigerian listed firms in a voluntary disclosure context. Their panel regression analysis showed that corporate attributes significantly drove IR adoption although share ownership structure and firm age did not have significant effects. This research highlights the role of corporate characteristics in advancing IR practices.

Udosen and Enoidem (2022) studied the impact of corporate attributes on environmental disclosure in Nigeria's brewery sector from 2012 to 2021. Logistic regression found that firm size was the only significant determinant of environmental disclosure, while profitability and leverage had no significant effects. The study recommended that breweries increase their asset base to strengthen disclosure practices.

Razaq, Alhassan, and Ame (2023) assessed how various corporate attributes, including firm, board, and ownership dimensions, influence sustainability reporting among Nigerian non-financial firms. Their panel regression analysis revealed that most attributes, including profitability, liquidity, board independence, and foreign ownership, significantly and positively influenced sustainability disclosure, underscoring the role of internal firm dynamics in promoting transparency.

Ehada, Okpanachi, Agbi, and Joshua (2023) examined the moderating role of female board membership on the relationship between environmental disclosures and profitability. An analysis of data from 41 firms over ten years found that only the interaction between female board membership and quality assurance disclosure negatively affected profitability. Other forms of disclosure and moderation effects were not significant, suggesting the need for strategic appointments based on expertise rather than token representation.

Abang'a and Tauringana (2023) studied corporate social responsibility disclosure (CSRD) in Kenyan state-owned enterprises, focusing on board characteristics. Using fixed-effect panel analysis, the study found that gender diversity, board chair age, and subcommittees negatively affected CSRD, whereas other board attributes were insignificant. The findings indicate SOEs' reluctance to fully disclose their CSR activities and highlight the need for stronger governance mechanisms, including dedicated CSR committees.

3.0 Methodology

This study focused on the corporate attributes and environmental information disclosure of listed non-financial firms in Nigeria. Consistent with the approach of previous empirical works in related research areas (Ozegbe & Jeroh, 2022; Izukwe & Jeroh, 2022; Ebiaghan, Jeroh & Ideh, 2021; Monye-Emina & Jeroh, 2022), this research employed the ex-post facto research design, which analyzes past events to identify causal elements, using variables that cannot be manipulated by the researcher and thereby minimizing bias. The population comprised all 102 non-financial firms with a sample of 75 non-financial firms selected using a purposive sampling technique, ensuring data completeness and reliability throughout the study period. Secondary data were sourced from the validated annual financial statements of the sampled companies, as approved by the NGX and SEC. The study specified multiple regression models to examine the relationship between environmental information disclosures and corporate attributes; board committee gender diversity, and board structure.

Model I

$EID_{it} = a_o + a_1RCGD_{it} + a_2REGD_{it} + a_3ACGD_{it} + \mu_t$ - - - - *eq. 1*

Model II

$EID_{it} = a_o + a_1BSIZE_{it} + a_2BIND_{it} + a_3BDIL_{it} + \mu_t$ - - - - *eq. 2*

Model III

$EID_{it} = a_o + a_1Prof(het)_{it} + a_2Own(het)_{it} + a_3Bs(het)_{it} + a_4Cgd(het)_{it} + \mu_t$ - *eq. 3*

Measurement of Variables

Variables	Proxy	Variable Code	Measurement	Sources	Priori Expectation
ENVIRONMENTAL INFORMATION DISCLOSURE	Environmental Disclosure	EID	Environmental disclosure of firms (Measured by dummy variable of 1 representing the presence of environmental section in the annual reports of each firm, otherwise, 0)	Offia, Ejezie, and Okafor (2023)	Nil
BOARD COMMITTEE GENDER DIVERSITY	Audit Committee Gender Diversity	AUGD	Measured by the number of female directors on the audit committee.	Ehada, Okpanachi, Agbi, and Joshua (2023)	+
	Risk Committee Gender Diversity	RCGD	Measured by the number of female directors on the risk committee	Ehada, Okpanachi, Agbi, and Joshua (2023)	+
	Gender Diversity in the Remuneration Committee	REGD	Measured by the number of female directors on the remuneration committee.	Ehada, Okpanachi, Agbi, and Joshua (2023)	+
BOARD STRUCTURE	Board Size	BSIZE	Measured by the number of directors on the company board	Abang'a and Tauringana (2023)	+
	Board Independence	BIND	Measured by the percentage of non-executive directors on the company board.	Abang'a and Tauringana (2023)	+
	Board Diligence	BDIL	Measured at the frequency of meetings held by the board during a particular year.	Abang'a and Tauringana (2023)	+

FIRM HETEROGENEITY	Firm Heterogeneity	FHET	Measured by the sector that the company belongs to. Oil and gas, 1, Services, 2, Natural Resources, 3, Industrial Goods, 4, Agriculture, 5, Construction and real estate 6, Conglomerate 7.	Okpala and Iredele (2019)	-

Source: Researchers' Compilation, 2025

4.0 Results and Discussion

4.1. Descriptive Statistics

The results of the descriptive statistics of the variables are presented in Table 4.1 below:

Table 4.1: Summary of descriptive statistics of study variables

Variable	***Mean***	***Std.***	***Min***	***Max***	***Skewness***	***Kurtosis***
EID	0.05233	0.16242	0.0000	0.75	3.1113	11.4347
BSIZE	8.95461	2.66901	4	19	0.76552	3.66558
BDIL	4.62166	1.22662	1	15	1.76467	11.48612
BIND	67.48074	14.76349	16.667	94.4444	-0.55732	3.06382
AUGD	12.41062	14.89115	0	71.4286	0.97052	3.22606
RCGD	7.86304	13.96731	0	80	1.71211	5.35818
REGD	6.37857	14.7538	0	75	2.37422	8.07138
FHET	3.21622	1.62249	1	7	0.67547	2.82931

Source: Researcher's Computation, 2025.

The average environmental information disclosure (EID) among Nigerian firms is low at 5.2%, with considerable variation and a highly right-skewed distribution, suggesting that while most firms disclose very little, a few report significantly more. Board sizes average around 9 members with moderate variation and a slight tendency toward smaller boards. Boards meet about 4.6 times per year on average, but this also varies greatly, with some firms meeting far more frequently. Board independence is relatively high at an average of 67.5%, indicating a balanced distribution. Gender diversity across committees is generally low, with audit, risk, and remuneration committees having low average female representation and high variability, indicating that while most firms have limited gender diversity, a few are notable exceptions.

4.2 Correlation Analysis

Correlation analysis examines the relationships between different variables to determine the strength and direction of their associations (Jeroh & Efeyunmi, 2022; Jeroh, 2023). However, Table 4.2 presents the results of the correlation analysis.

Table 4.2. Correlation Analysis Results

Variable	*EID*	*BSIZE*	*BDIL*	*BIND*	*AUGD*	*RCGD*	*REGD*	*F.HET*
EID	1.0000							
BSIZE	0.1982	1.0000						
BDIL	0.0575	0.1793	1.0000					
BIND	0.0628	0.1584	0.0291	1.0000				
AUGD	0.0226	0.0015	0.0189	0.0637	1.0000			
RCGD	-0.0752	0.1254	-0.0062	-0.0707	0.1603	1.0000		
REGD	0.0552	0.1061	-0.0143	0.1371	0.3035	0.3387	1.0000	
FHET	0.0302	0.0473	0.0297	0.1132	-0.0075	-0.0855	-0.0524	1.0000

Source: Researcher's Computation, 2025.

The outcome from the correlation analysis reveals that environmental information disclosure (EID) has a weak but positive relationship with board size, suggesting that larger boards may support more environmental reporting, while board diligence, independence, and gender diversity in various committees show minimal to weak correlations with EID, indicating limited influence. Notably, risk committee gender diversity has a slight negative correlation with EID. Among the governance variables, board size shows weak positive ties with both board diligence and independence, whereas firm heterogeneity has minimal correlation with EID or other corporate attributes, suggesting that it does not significantly affect governance or disclosure practices.

4.3 Variance Inflation Factor (VIF) Test

The Variance Inflation Factor (VIF) test identifies multicollinearity in regression analysis by measuring how much the variance of a regression coefficient is inflated due to the correlation between predictors. Table 4.3 displays the outcome of the VIF test conducted in this study.

Table 4.3. Results of Variance Inflation Factor (VIF) Test

Variable	*VIF*	*1/VIF*
REGD	1.27	0.789110
RCGD	1.20	0.830196
AUGD	1.14	0.873742
BSIZE	1.11	0.898471
BIND	1.09	0.918365
FHET	1.06	0.939507
BDIL	1.04	0.963860
Mean VIF = 1.11		

Source: Researcher's Computation, 2025.

The results of the Variance Inflation Factor (VIF) test indicate that multicollinearity is not a concern in the regression analysis conducted in this study. VIF measures how much the variance of a regression coefficient is inflated due to the correlation with other independent variables. A common rule of thumb is that a VIF value exceeding 10 signals indicates serious multicollinearity problems. However, in this study, all the variables have VIF values ranging from 1.02 to 1.27, with the highest value (1.27) observed for remuneration committee gender diversity (REGD). The average VIF across all variables is 1.11, which is very close to 1, suggesting that the independent variables are only weakly correlated with one another.

This low level of multicollinearity implies that the regression coefficients are stable and the standard errors are not inflated, making the estimation of each variable's effect on environmental information disclosure (EID) more reliable. Therefore, the model can be interpreted with confidence, as no variable exerts undue influence because of its high correlation with another, and all predictors contribute uniquely to explaining variations in EID.

4.4 Hypothesis testing

4.4.1 Test of Hypothesis I

Table 4.4: Results of Model I and Test of Hypothesis I

Dependent Variable: Environmental Information Disclosure (EID)					
Variable	**Symbols**	**Coefficient**	**Std. Err.**	**t-stat.**	**p-value**
Audit Committee Gender Diversity	AUGD	0.01039	0.00774	1.34	0.179
Risk Committee Gender Diversity	RCGD	-0.03177	0.01158	-2.74	0.006
Gender Diversity in the Remuneration Committee	REGD	0.01280	0.00806	1.59	0.112
Constant	_cons	-2.08197	0.16085	-12.94	0.000
Prob > chi2:		0.0129			
Wald chi2(3)		10.79			
Number of Obs.		750			

Source: Researcher's Computation, 2025

This study investigates the effect of committee gender diversity on environmental information disclosure (EID) among listed non-financial firms in Nigeria, focusing on audit, risk, and remuneration committees. Results depicted in Table 4.4 show that audit and remuneration committee gender diversity have small positive but statistically insignificant effects on EID (p-values of 0.179 and 0.112, respectively. In contrast, risk committee gender diversity has a statistically significant negative effect on EID (coefficient = -0.03177, p = 0.006), suggesting that increased female representation in risk committees may be associated with lower environmental disclosure, possibly due to differing priorities in risk management. The overall model is statistically significant (Prob > chi^2 = 0.0129), indicating that committee gender diversity collectively has explanatory power regarding EID, although its impact varies across committees.

4.4.2 Test of Hypothesis II

Table 4.5: Results of Model II and Test of Hypothesis II

Dependent Variable: Environmental Information Disclosure (EID)					
Variable	**Symbols**	**Coefficient**	**Std. Err.**	**t-stat.**	**p-value**
Board Size	BSIZE	0.20193	0.04094	4.93	0.000
Board Diligence	BDIL	-0.03635	0.09707	-0.37	0.708
Board Independence	BIND	0.00022	0.00783	0.03	0.978
Constant	_cons	-3.82493	0.75221	-5.08	0.000
Prob > chi2:		0.0000			
Wald chi2(3)		24.98			
Number of Obs.		750			

Source: Researcher's Computation, 2025

The analysis of board structure and its effect on environmental information disclosure (EID) among listed non-financial firms in Nigeria, as depicted in Table 4.5, reveals that board size (BSIZE) has a significant positive impact on EID, suggesting that larger boards enhance environmental reporting due to their diversity and broader oversight, while board diligence (BDIL) and board independence (BIND) show no statistically significant effects, indicating that meeting frequency and the presence of independent directors do not meaningfully influence environmental disclosure. Despite this, the overall model is statistically significant (Prob > chi^2 = 0.0000), confirming that board structure collectively influences EID, with board size emerging as the key driver, highlighting the importance of board composition in promoting transparency and sustainability practices.

4.4.3 Test of Hypothesis III

Table 4.6: Results of Model III and Test of Hypothesis III

Dependent Variable: Environmental Information Disclosure (EID)

Variable	Symbols	Coefficient	Std. Err.	t-stat.	p-value
Board Structure (Heterogeneity)	BS (HET)	0.00005	0.00001	4.00	0.000
Committee Gender Diversity (Het)	CGD (HET)	3.9706	2.7206	1.46	0.144
Constant	_cons	-2.62327	0.20157	-13.01	0.000
Prob > chi2(4)		0.0011			
Wald chi2(4)		18.32			
Number of Obs.		750			

Source: Researcher's Computation, 2025

The results in Table 4.6 reveal that firm heterogeneity does not weaken the positive and significant impact of board structure on environmental information disclosure (EID) among listed non-financial firms in Nigeria, confirming that well-structured boards continue to drive improved environmental reporting regardless of firm-level differences; however, committee gender diversity (CGD) shows a positive but statistically insignificant effect, suggesting that gender representation on committees does not significantly influence EID when firm heterogeneity is accounted for. Although the overall model is statistically significant (Prob > chi^2 = 0.0011), indicating that the combination of corporate attributes and firm heterogeneity has explanatory power, only board structure emerges as a meaningful predictor, underscoring its central role in enhancing environmental transparency, while other governance factors like committee gender diversity appear less impactful in heterogeneous firm environments.

This study examined the influence of corporate attributes, specifically board structure and committee gender diversity, on environmental information disclosure (EID) among listed non-financial firms in Nigeria, revealing that board structure, particularly larger board size, significantly enhances environmental reporting by promoting stronger governance and transparency. This aligns with prior studies that linked board size to improved disclosure practices. Additionally, the study found that gender diversity across audit, risk, and remuneration committees positively influences EID, supporting the existing literature that emphasizes the role of diverse boards in advancing environmental accountability. These findings underscore the importance of governance quality and inclusivity in driving corporate environmental transparency, suggesting that regulatory and policy initiatives should emphasize board effectiveness and diversity to foster more robust environmental disclosure practices.

5.0 Conclusion and Recommendations

This study investigated the impact of corporate attributes board structure and committee gender diversity on environmental information disclosure (EID) among listed non-financial firms in Nigeria. The findings revealed that board structure, particularly board size, had a strong positive effect, highlighting the importance of governance in promoting environmental transparency. Committee gender diversity also had a significant effect on EID. Individually; risk committee gender diversity had a significant negative impact on EID, while audit and remuneration committee diversity showed no significant influence. Furthermore, firm heterogeneity influences the relationship between corporate attributes and EID, yet board structure remains a consistent and significant predictor. These outcomes underscore that robust governance structures are the most effective drivers of environmental reporting practices, with implications for both corporate strategies and regulatory frameworks that aim to enhance transparency and sustainability.

In view of the above, however, this research recommends the following:

i. Regulators of financial reporting in Nigeria should consider the need to strengthen the regulatory frameworks for reporting by developing consistent and effective reporting frameworks for EID in Nigeria.
ii. Companies should enhance gender diversity, specifically within risk committees, to improve environmental transparency, supported by targeted diversity policies and capacity-building for female members.
iii. Firms should prioritize increasing board size because larger boards significantly improve environmental disclosure and consider additional governance strategies like forming environmental committees or appointing environmental experts.
iv. Given that firm heterogeneity influences the effectiveness of corporate attributes on EID, regulators and firms should adopt flexible, tailored approaches to environmental disclosure policies that reflect individual firm characteristics for more impactful outcomes.

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