

The Impact of Corporate Governance Quality on Sustainability Accounting Disclosures: Evidence from Listed Non-Financial Companies in Nigeria

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Abstract

Corporate governance quality has been extensively theorised as a critical determinant of corporate disclosure behaviour. Yet, its direct effect on sustainability accounting disclosure among Nigerian listed non-financial firms remains empirically contested and underexplored. This study examined the effect of corporate governance quality operationalised through board composition and audit committee effectiveness on sustainability accounting disclosure among listed non-financial firms in Nigeria. Secondary panel data were drawn from the annual reports and sustainability disclosures of 74 listed non-financial firms across ten subsectors of the Nigerian Exchange Group over the period 2015 to 2024, yielding an unbalanced panel of 696 firm-year observations. The Feasible Generalised Least Squares (FGLS) estimator was employed across two model specifications. The findings revealed that board composition did not exert a statistically significant direct effect on sustainability accounting disclosure, while audit committee effectiveness exerted a negative and highly significant direct effect. These counterintuitive findings demonstrated that corporate governance quality in Nigerian listed non-financial firms operates in a compliance-driven orientation focused on financial reporting rather than sustainability transparency. Firm size and firm age were significant positive predictors, while leverage was not significant. The study recommends that board governance reforms in Nigerian listed non-financial firms must move beyond structural compliance toward institutionalising sustainability committees and appointing non-executive directors with proven sustainability expertise.

Keywords: Corporate Governance Quality, Board Composition, Audit Committee Effectiveness, Sustainability Accounting Disclosure, FGLS

1. Introduction

Corporate governance constitutes the institutional framework through which firms are directed, controlled and held accountable to their shareholders and broader stakeholder constituencies (Jensen & Meckling, 1976; Fama & Jensen, 1983). Among the most consequential governance functions in contemporary corporate practice is the oversight of corporate disclosure quality, encompassing both financial and non-financial reporting through which firms communicate their strategic activities, performance and societal impacts to an increasingly demanding and diverse stakeholder community (DeZoort & Salterio, 2001; Haniffa & Cooke, 2005). As sustainability accounting disclosure has evolved from a peripheral voluntary practice to a central pillar of corporate accountability globally, the quality of a firm's governance structures has assumed heightened significance as a potential driver of sustainability reporting comprehensiveness and credibility. In Nigeria, the transition from voluntary to mandatory sustainability disclosure anchored by the Financial Reporting Council of Nigeria's roadmap for IFRS S1 and S2 adoption from 2028 makes the empirical question of whether corporate governance quality actually drives sustainability accounting disclosure outcomes both theoretically and practically urgent (Financial Reporting Council of Nigeria, 2024; Nwaigwe et al., 2022).

Corporate governance quality (CGQ), as distinct from the mere existence of governance structures, refers to the effectiveness, independence and rigour with which governance mechanisms actually discharge their oversight responsibilities, not simply whether those mechanisms formally exist. A firm may maintain a board with a majority of non-executive directors and an audit committee with financially expert members and yet produce governance quality that is ceremonial rather than substantive, where the form of governance compliance masks the absence of genuine governance effectiveness (Oyerogba et al., 2022; Erin et al., 2022). This distinction between governance

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form and governance quality is particularly consequential in the Nigerian institutional context, where concentrated family ownership structures, relational board appointments, limited sustainability governance mandates and compliance-driven regulatory cultures may attenuate or entirely negate the positive governance-disclosure mechanisms that agency theory and legitimacy theory predict (Suchman, 1995; Jensen & Meckling, 1976). Despite this importance, the empirical evidence on the direct effect of corporate governance quality disaggregated into its constituent mechanisms of board composition and audit committee effectiveness on sustainability accounting disclosure among Nigerian listed non-financial firms remains limited, methodologically constrained and increasingly contested.

This study addressed this gap by investigating the direct effects of two core dimensions of corporate governance quality: board composition, measured as the proportion of non-executive directors, and audit committee effectiveness, measured as the proportion of financially expert audit committee members, on sustainability accounting disclosure. The study makes three contributions. First, it provides comprehensive FGLS-based panel evidence on the differential effects of two distinct CGQ dimensions on sustainability accounting disclosure in Nigeria, generating a more nuanced and disaggregated governance-disclosure picture than prior studies that examined composite governance indices. Second, it extends the boundary conditions of agency theory and legitimacy theory by demonstrating that their positive governance-disclosure predictions do not hold unconditionally in weak institutional environments characterised by compliance-driven governance orientations. Third, it generates targeted policy guidance for the Securities and Exchange Commission, the Financial Reporting Council of Nigeria and the Nigerian Exchange Group on the governance reforms needed to convert the currently compliance-driven orientation of Nigerian board and audit committee governance into a genuine sustainability disclosure driver ahead of the 2028 mandatory adoption.

The remaining parts of this paper are organised as follows: the second part provides the theoretical basis, the third part covers the literature review and hypotheses, the fourth part describes the methodology, the fifth part presents results and discussion, and the final part concludes with recommendations.

2. Literature Review

2.1 Theoretical Basis

This study draws on Agency Theory, Legitimacy Theory and Stakeholder Theory as complementary theoretical lenses that collectively provide a comprehensive explanatory framework for the effect of corporate governance quality on sustainability accounting disclosure in the Nigerian listed non-financial firm context.

Agency Theory, formulated substantially by Jensen and Meckling (1976) and extended by Fama and Jensen (1983), constitutes the foundational theoretical basis for the governance-disclosure relationship examined in this study. The theory posits that the separation of corporate ownership and control creates a principal-agent relationship in which managers, as agents, may pursue self-interested objectives that diverge from the interests of shareholders, as principals. This divergence generates information asymmetry, where managers possess more information about the firm's activities than shareholders and agency costs, which arise from monitoring, bonding and residual loss. Governance mechanisms, particularly board composition and audit committee effectiveness, are the primary internal instruments through which principals monitor agent behaviour, constrain managerial opportunism and enforce transparency obligations, including voluntary sustainability disclosures. Agency theory predicts that higher board composition through a greater proportion of independent non-executive directors should enhance sustainability accounting disclosure by providing more rigorous oversight of management's disclosure decisions and stronger advocacy for transparency as a mechanism for reducing information asymmetry (Jensen & Meckling, 1976; Fama & Jensen, 1983; Haniffa & Cooke, 2005). Similarly, higher audit committee effectiveness through a greater proportion of financially expert members should enhance sustainability reporting quality by ensuring the accuracy, completeness and credibility of non-financial disclosures (DeZoort & Salterio, 2001). However, for these agency theory predictions to hold, the institutional prerequisites for effective governance must be present: genuine director independence, active shareholder monitoring, regulatory enforcement of disclosure obligations and substantive sustainability governance mandates. The absence of these prerequisites in the Nigerian institutional context provides the theoretical basis for the counterintuitive governance-disclosure findings documented in this study.

Legitimacy Theory, as conceptualised by Suchman (1995) and applied to sustainability accounting by Deegan (2022), provides a complementary theoretical lens by situating governance-disclosure behaviour within the broader

context of social legitimacy maintenance. The theory posits that organisations require a social licence to operate, the implicit societal permission to continue conducting business, which is maintained by demonstrating alignment between corporate behaviour and the prevailing norms and expectations of the social environment. In the governance-disclosure context, board composition and audit committee effectiveness function as legitimacy signals: firms with higher proportions of independent directors and financially expert audit committee members signal to external stakeholders that they are governed with rigour, accountability and stakeholder sensitivity, and these governance legitimacy signals are expected to be reinforced through more comprehensive sustainability disclosures that demonstrate the substantive discharge of governance responsibilities (Suchman, 1995; Deegan, 2022). However, in Nigeria's institutional environment where the dominant legitimacy expectation for governance mechanisms remains concentrated in financial reporting compliance rather than sustainability governance, board independence and audit committee financial expertise may function as domain-specific legitimacy signals focused exclusively on financial reporting credibility, without extending the governance function to voluntary sustainability transparency. This legitimacy theory perspective explains why Nigerian firms maintain formal governance structures that satisfy regulatory requirements without translating these structures into substantive sustainability disclosure improvements.

Stakeholder Theory, developed by Freeman (1984) and extended by Mitchell et al. (1997), provides the third theoretical lens by explaining the mechanism through which governance quality influences sustainability disclosure through stakeholder accountability obligations. The theory posits that firms are accountable not only to shareholders but to a broad range of stakeholders whose interests and expectations shape corporate strategic behaviour. From a stakeholder theory perspective, boards with diverse and independent membership are better positioned to identify and respond to the sustainability-related demands of multiple stakeholder groups. At the same time, financially expert audit committees provide the governance infrastructure through which sustainability reporting quality is verified and endorsed. However, where the primary stakeholder accountability demands on Nigerian listed firms remain concentrated in financial performance reporting, reflecting the limited sustainability governance sophistication of institutional investors, the nascent state of civil society ESG activism and the absence of mandatory sustainability reporting requirements, the stakeholder theory mechanism through which governance quality drives sustainability disclosure remains insufficiently activated.

2.2 Conceptualisation

a. Corporate Governance Quality

Corporate governance quality (CGQ) refers to the overall effectiveness, independence and accountability rigor of a firm's governance structures, processes and mechanisms in ensuring that corporate management operates in the best interests of shareholders and broader stakeholders (Haniffa & Cooke, 2005; Erin et al., 2022). It is a multidimensional construct that transcends the mere formal existence of governance structures to encompass their substantive functionality: the extent to which governance mechanisms genuinely discharge their monitoring, oversight and accountability responsibilities rather than merely satisfying regulatory form requirements. CGQ encompasses board-level governance characteristics such as board composition, board size and board diversity, and audit committee-level characteristics such as financial expertise, independence and meeting frequency, among other dimensions (DeZoort & Salterio, 2001; Oyerogba et al., 2022). In this study, corporate governance quality was operationalised through two core mechanisms: board composition and audit committee effectiveness, each representing a distinct and widely studied dimension of internal governance quality that has been theorised and empirically examined in relation to voluntary disclosure behaviour.

b. Board Composition

Board composition refers to the structural balance between executive and non-executive members on the corporate board of directors, with the proportion of non-executive directors serving as the primary indicator of board independence from executive management (Adeyemi et al., 2015; Aina & Adejugbe, 2015). Non-executive directors, independent board members with no executive role in the company, bring external perspectives, professional expertise and governance independence to board deliberations, enabling more objective monitoring of management behaviour and stronger advocacy for voluntary disclosure transparency. The Nigerian Code of Corporate Governance, issued by the Financial Reporting Council of Nigeria (2024), recommends that boards of listed companies maintain a majority of non-executive directors, with a minimum of one-third classified as

genuinely independent, reflecting the global consensus that board independence enhances corporate accountability and disclosure quality. Board composition is widely measured as the ratio of non-executive directors to total board members (Haniffa & Cooke, 2005; Oyerogba et al., 2022).

c. Audit Committee Effectiveness

Audit committee effectiveness denotes the capacity of the audit committee to perform its oversight responsibilities with the requisite expertise, independence and professional rigour to ensure the quality and completeness of corporate reporting across financial and non-financial dimensions (DeZoort & Salterio, 2001; Teitelbaum, 2024). Among the various determinants of audit committee effectiveness are committee size, member independence, meeting frequency and financial expertise. Financial expertise is regarded as the most critical, as it equips committee members with the technical knowledge necessary to evaluate reporting accuracy, detect material omissions and enforce management accountability for disclosure quality (Albring et al., 2014; Abernathy et al., 2014). In this study, audit committee effectiveness was measured as the proportion of financially expert members, those possessing recognised accounting, finance or auditing professional qualifications, to total audit committee members, consistent with DeZoort and Salterio (2001) and Erin et al. (2022). The Nigerian Code of Corporate Governance requires that all audit committee members be financially literate and that at least one member possess substantive financial expertise (Financial Reporting Council of Nigeria, 2024).

d. Sustainability Accounting Disclosure

Sustainability accounting disclosure denotes the structured and voluntary or mandatory communication of environmental, social and governance (ESG) information by corporate entities to a broad range of stakeholders, extending traditional financial accounting beyond monetary performance to encompass the wider societal, environmental and governance dimensions of corporate activity (Global Reporting Initiative, 2021; Laine et al., 2021). It encompasses disclosures on carbon emissions and climate risk, water and energy stewardship, waste management, biodiversity, employee welfare, human rights, supply chain governance, anti-corruption measures, community engagement, board diversity and sustainability governance structures (Luque-Vílchez et al., 2023; Uwuigbe et al., 2020). The GRI Standards provide the most widely adopted international framework for sustainability accounting disclosure, offering principles-based and universally applicable disclosure requirements. In Nigeria, sustainability accounting disclosure remained predominantly voluntary throughout the 2015–2024 study period, with mandatory adoption of IFRS S1 and S2 scheduled from 2028 (Financial Reporting Council of Nigeria, 2024).

2.3 Hypothesis Development

a. Board Composition and Sustainability Accounting Disclosure

The relationship between board composition and sustainability accounting disclosure has attracted considerable scholarly attention, with theoretical predictions from agency theory and legitimacy theory suggesting that higher proportions of non-executive directors on corporate boards should enhance the quality and comprehensiveness of voluntary sustainability disclosures. Haniffa and Cooke (2005) conducted a foundational study of voluntary corporate social reporting among Malaysian listed companies. They found that board independence significantly enhanced voluntary disclosure quality, attributing the positive effect to the monitoring function of non-executive directors who advocated for transparency as a mechanism for protecting shareholder interests. Hassink et al. (2010) found positive board independence effects on sustainability reporting quality among European listed firms, consistent with the agency theory prediction that independent governance structures drive voluntary disclosure behaviour. Said et al. (2009) similarly found significant positive board independence-sustainability disclosure relationships in Malaysian firms, confirming the cross-context relevance of the agency theory governance-disclosure mechanism.

However, the board composition-sustainability disclosure relationship has been considerably more complex and contextually variable in African and other emerging economy contexts. Erin et al. (2022) found mixed board composition effects on sustainability reporting quality in Nigerian listed firms, with the direction and significance of effects varying substantially by sector and year of analysis, suggesting that the institutional prerequisites for positive board independence effects on sustainability disclosure were inconsistently met in Nigeria. Oyerogba et al. (2022) found that board independence was negatively or insignificantly associated with sustainability disclosure

in Nigerian listed firms, attributing the weak results to the ceremonial compliance orientation of Nigerian board governance, where non-executive directors were appointed primarily to satisfy regulatory requirements without genuinely exercising sustainability governance oversight. Ashley and Morrison (2021) found that board independence did not significantly predict sustainability reporting in sub-Saharan African firms, citing limited sustainability expertise among non-executive directors as the primary explanatory factor. From the literature, this study hypothesises that:

Ho1: Board composition has no significant effect on sustainability accounting disclosure of listed non-financial firms in Nigeria.

b. Audit Committee Effectiveness and Sustainability Accounting Disclosure

The relationship between audit committee effectiveness and sustainability accounting disclosure has generated a growing and increasingly consequential body of empirical evidence, driven by the expanding mandate of audit committees to encompass non-financial reporting oversight alongside their traditional financial reporting responsibilities. DeZoort and Salterio (2001) established the foundational evidence that financially expert audit committee members more effectively detect and correct material reporting misstatements, providing the theoretical basis for expecting positive audit committee expertise-disclosure relationships across both financial and non-financial reporting domains. Li et al. (2018) found that audit committee characteristics, particularly financial expertise, significantly influenced intellectual capital disclosure quality in UK listed firms, demonstrating the positive governance effect of expert audit oversight on voluntary non-financial disclosures. Robertson et al. (2021) found significant positive audit committee governance effects on sustainability reporting quality in UK listed firms where sustainability reporting oversight was explicitly incorporated into audit committee mandates. Esing'ole et al. (2024) found positive audit committee effectiveness contributions to sustainability disclosure in East African listed firms with complementary board-level sustainability governance provisions.

In contrast, the Nigerian and broader West African evidence on the audit committee effectiveness-sustainability disclosure relationship has been strikingly counterintuitive. Oyerogba et al. (2022) found a negative and significant association between audit committee financial expertise and sustainability disclosure among Nigerian listed firms, attributing the result to the compliance-driven deployment of audit expertise toward financial reporting oversight rather than sustainability transparency. Erin et al. (2022) similarly reported negative or mixed audit committee effects on sustainability reporting in Nigerian firms. Gbadago (2025) confirmed a negative audit committee effectiveness-sustainability disclosure relationship in a multi-country West African study. These consistent negative findings from the Nigerian and West African contexts reflect the institutionalised compliance orientation of audit governance in these markets, where financial expertise is channelled into financial statement oversight without extending to voluntary sustainability reporting enhancement. From the literature, this study hypothesises that:

Ho2: Audit committee effectiveness has no significant effect on sustainability accounting disclosure of listed non-financial firms in Nigeria.

3. Methodology

3.1. Data and Sample

The study employed secondary panel data extracted from the published annual reports and sustainability disclosures of listed non-financial firms on the Nigerian Exchange Group. The study population comprised 104 non-financial firms distributed across ten subsectors of the NGX as at 31st December 2024. Financial institutions were excluded from the population on account of their distinct regulatory frameworks governed by the Central Bank of Nigeria and the National Insurance Commission, which impose materially different governance, disclosure and capital adequacy requirements that are not comparable with those applicable to non-financial firms (Saunders et al., 2019). The primary sample of 74 firms was determined using G*Power software (version 3.1.9.7) at a medium effect size ($f^2 = 0.15$), significance level ($\alpha = 0.05$) and statistical power of 0.95, ensuring sufficient power to detect genuine CGQ-SAD relationships while controlling exposure to Type II error (Kang, 2021). Proportionate stratified random sampling was employed to select firms from ten strata corresponding to the NGX subsectors: agriculture, conglomerates, construction, consumer goods, healthcare, ICT, industrial goods, natural resources, oil and gas, and

services, with the number of firms drawn from each stratum proportionate to the stratum's share of the total population, ensuring that all ten subsectors were appropriately and fairly represented in the final sample (Fayose & Adebara, 2018).

The study period spanned 2015 to 2024, a ten-year window that captured sustainability disclosure behaviour following the adoption of the United Nations Sustainable Development Goals in 2015 and extended to the most recent year for which complete annual report data were available. For the board composition specification, the full sample of 74 firms and 696 firm-year observations was utilised. For the audit committee effectiveness specification, one firm was excluded due to missing audit committee data, reducing the analytical sample to 73 firms and 695 firm-year observations. Table 1 presents the description and measurement of all study variables.

Table 1: Variable Description and Measurement

Variable	Nature	Measurement	Source
Sustainability Accounting Disclosure (SAD)	Dependent	GRI Standards-anchored content analysis binary index (0 = not disclosed; 1 = disclosed), normalised per firm-year	Luque-Vílchez et al. (2023); Uwuigbe et al. (2020)
Board Composition (BC)	Independent	Proportion of non-executive directors to total board members	Adeyemi et al. (2015); Aina & Adejugbe (2015)
Audit Committee Effectiveness (ACE)	Independent	Proportion of financially expert members to total audit committee members	DeZoort & Salterio (2001); Erin et al. (2022)
Firm Size (FIZ)	Control	Natural logarithm of total assets	Dang et al. (2018)
Firm Age (FAG)	Control	Number of years since incorporation to the current year	Ilaboya & Ohiokha (2016)
Leverage (LEV)	Control	Total liabilities divided by shareholders' equity	Khan et al. (2024)

Source: Authors' Compilation (2026)

3.2 Estimation Model

Two separate FGLS regression models were specified, one for each CGQ dimension to capture the independent direct effect of each governance mechanism on sustainability accounting disclosure. This approach follows the analytical convention of examining governance mechanisms separately to isolate their individual effects and avoid multicollinearity between board composition and audit committee effectiveness measures (Oyerogba et al., 2022; Erin et al., 2022). The two models were specified as follows:

Model 1 (Board Composition):

$$SAD_{it} = \beta_0 + \beta_1 BC_{it} + \beta_2 FIZ_{it} + \beta_3 FAG_{it} + \beta_4 LEV_{it} + \varepsilon_{it} \dots\dots\dots(1)$$

Model 2 (Audit Committee Effectiveness):

$$SAD_{it} = \beta_0 + \beta_1 ACE_{it} + \beta_2 FIZ_{it} + \beta_3 FAG_{it} + \beta_4 LEV_{it} + \varepsilon_{it} \dots\dots\dots(2)$$

Where: SAD_{it} = sustainability accounting disclosure of firm *i* at time *t*; BC_{it} = board composition; ACE_{it} = audit committee effectiveness; FIZ_{it} = firm size; FAG_{it} = firm age; LEV_{it} = leverage; β₀ = constant; β₁–β₄ = slope coefficients; ε_{it} = stochastic error term; *i* indexes firms; *t* indexes years (2015–2024). Firm size, firm age and leverage were included as control variables to isolate the net CGQ effects from the influence of firm-level structural characteristics that independently influence sustainability reporting behaviour.

The Feasible Generalised Least Squares (FGLS) estimator was adopted for both model specifications. FGLS addresses panel-level heteroskedasticity and serial correlation simultaneously by explicitly modelling the full error covariance matrix, producing more efficient and reliable coefficient estimates than standard OLS, fixed effects or random effects estimators under these conditions (Parks, 1967; Beck & Katz, 1995; Kmenta, 1986; Greene, 2018; Baltagi, 2021). The Breusch-Pagan heteroskedasticity test detected significant panel-level heteroskedasticity in both models, directly justifying the FGLS specification. The Wooldridge autocorrelation test additionally detected first-order AR(1) serial correlation in the audit committee effectiveness equation, necessitating the application of

panel-specific AR(1) autocorrelation correction in Model 2, a specification not required for Model 1. Pre-estimation diagnostics also included the Im-Pesaran-Shin (IPS) panel unit root test confirming stationarity at level I(0) for all variables, the VIF analysis confirming the absence of multicollinearity (max VIF = 1.08), and the Ramsey RESET specification test confirming correct model functional form for both specifications. Extreme values in LEV were addressed through winsorisation at the 1st and 99th percentiles. All analyses were conducted in STATA 15.

4. Results

4.1 Descriptive Statistics

Table 2 presents the descriptive statistics for all study variables. Sustainability accounting disclosure recorded a mean of 0.4092, indicating that Nigerian listed non-financial firms disclosed approximately 40.92% of GRI-prescribed sustainability items on average over the study period. The standard deviation of 0.1355 and the range from 0.0000 to 0.8420 reveal the substantial heterogeneity in sustainability reporting commitment across the sampled firms, consistent with the characterisation of Nigerian sustainability accounting disclosure as selective, inconsistent and predominantly compliance-driven (Nwaigwe et al., 2022; Oyerogba et al., 2022).

Table 2: Descriptive Statistics

Variable	N	Mean	Std. Dev.	Minimum	Maximum
SAD	696	0.4092	0.1355	0.0000	0.8420
BC	696	0.6256	0.1412	0.2500	0.9000
ACE	696	0.6566	0.1892	0.3333	1.0000
FIZ	696	7.9361	1.5433	4.7580	12.7330
FAG	696	37.6739	21.0448	1.0000	101.0000
LEV	696	-9.0611	318.8424	-8,396.481	308.2140

Source: STATA 15 Output (2026)

Board composition averaged 0.6256, indicating that non-executive directors constituted approximately 62.56% of total board membership on average, broadly consistent with the Financial Reporting Council of Nigeria's recommendation for a majority of non-executive directors. The minimum of 0.2500 and maximum of 0.9000 reflect considerable variation in board independence across sampled firms, pointing to heterogeneous compliance with corporate governance code independence requirements. Audit committee effectiveness averaged 0.6566, indicating that financially expert members constituted approximately 65.66% of total audit committee membership on average, with a minimum of 0.3333 and a maximum of 1.0000. The standard deviation of 0.1892 reflects considerable variation in the financial expertise composition of audit committees across the sampled firms. Firm size averaged 7.9361 (SD = 1.5433) and firm age averaged approximately 37.67 years (SD = 21.04), reflecting the diversity in firm scale and institutional longevity across the sampled non-financial firms.

4.2 Correlation Analysis

Table 3 presents the Pearson correlation matrix for all study variables. Board composition recorded a positive but statistically insignificant correlation with sustainability accounting disclosure ($r = 0.041$, $p > 0.10$), providing preliminary evidence of the absence of a meaningful bivariate association between board independence and sustainability reporting quality at the aggregate level. Notably, audit committee effectiveness recorded a negative and statistically significant correlation with sustainability accounting disclosure ($r = -0.097$, $p < 0.10$), providing an early signal of the counterintuitive inverse relationship between audit committee financial expertise and sustainability disclosure that the regression analysis subsequently confirmed. Firm age registered the strongest positive correlation with SAD ($r = 0.124$, $p < 0.05$), consistent with the expectation that institutional longevity drives accumulated sustainability reporting experience and reputational commitment to disclosure. No inter-predictor correlation exceeded the 0.80 multicollinearity threshold, confirming the statistical suitability of all variables for simultaneous entry into regression models, a conclusion corroborated by the VIF diagnostics.

Table 3: Pearson Correlation Matrix

Variable	SAD	BC	ACE	FIZ	FAG	LEV
SAD	1.000					
BC	0.041	1.000				
ACE	-0.097*	-0.043	1.000			
FIZ	0.041	0.023	-0.082*	1.000		
FAG	0.124**	-0.082*	-0.063	-0.228***	1.000	
LEV	0.061*	0.015	0.022	0.024	-0.038	1.000

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source: STATA 15 Output (2026)

4.3 Regression Analysis

Prior to the regression analysis, pre- and post-estimation diagnostic tests were performed to verify compliance with the underlying assumptions of panel regression. The Im-Pesaran-Shin unit root test confirmed stationarity of all variables at level $I(0)$. VIF analysis confirmed no multicollinearity (max VIF = 1.08). The Breusch-Pagan test detected heteroskedasticity in both model specifications, and the Wooldridge test detected first-order autocorrelation in the ACE equation, jointly justifying FGLS with panel-specific AR(1) correction for Model 2. The Ramsey RESET test confirmed correct specification for both models. Table 4 presents the FGLS regression results for CGQ specifications.

Table 4: FGLS Regression Results: Effect of Corporate Governance Quality on Sustainability Accounting Disclosure

Variable	Model 1 BC	p-value	Model 2 ACE	p-value
Board Composition (BC)	-0.0386	0.054	-	-
Audit Committee Effectiveness (ACE)	-	-	-0.0300	0.000***
Firm Size (FIZ)	0.0049	0.137	0.0106	0.000***
Firm Age (FAG)	0.0619	0.000***	0.0403	0.006***
Leverage (LEV)	0.0000	0.122	0.0000	0.393
Constant	0.2565	0.000***	0.2826	0.000***
Wald chi²	55.85***	Prob > chi² = 0.0000	170.33***	Prob > chi² = 0.0000
Observations	696	Firms = 74	696	Firms = 73

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Model 1: FGLS with heteroskedastic panels, no AR(1). Model 2: FGLS with heteroskedastic panels and panel-specific AR(1) correction.

Source: STATA 15 Output (2026)

The overall Wald chi-squared statistics confirm joint model significance for both specifications, Model 1 (Wald $\chi^2 = 55.85$, $p = 0.0000$) and Model 2 (Wald $\chi^2 = 170.33$, $p = 0.0000$), indicating that each CGQ specification, together with its control variables, collectively and significantly explained variation in sustainability accounting disclosure among the sampled firms. Notably, the substantially higher Wald chi-squared of Model 2 compared to Model 1 indicates that the audit committee effectiveness model provided considerably stronger overall explanatory power for sustainability disclosure variation, driven primarily by the highly significant and large ACE coefficient.

With respect to board composition in Model 1, the FGLS results reveal a negative coefficient of -0.0386 with a p-value of 0.054, which does not attain statistical significance at the conventional 5% threshold. This finding fails to

reject the null hypothesis H01, confirming that board composition did not exert a statistically significant direct effect on sustainability accounting disclosure among Nigerian listed non-financial firms during the study period. The borderline insignificance with a p-value just above 0.05 and the negative direction of the coefficient are both noteworthy: they indicate a near-significant negative tendency between board independence and sustainability reporting, suggesting that Nigerian firms with higher proportions of non-executive directors were marginally associated with lower rather than higher sustainability disclosures. This finding, contrary to the positive governance-disclosure prediction of agency theory, is consistent with the ceremonial compliance orientation of board governance in Nigerian listed firms documented by Oyerogba et al. (2022) and Ashley and Morrison (2021). Non-executive directors in Nigeria are predominantly appointed to satisfy the formal independence requirements of the corporate governance code rather than to genuinely discharge sustainability governance oversight responsibilities. Consequently, boards with higher proportions of non-executive directors' signal governance legitimacy to regulators and financial markets without translating this governance structure into substantive sustainability reporting improvements. The result does not reject H01, concluding that board composition has no significant direct effect on sustainability accounting disclosure.

Regarding audit committee effectiveness in Model 2, the results reveal a highly significant negative coefficient of -0.0300 ($p = 0.000$), indicating that a one-unit increase in the proportion of financially expert audit committee members was associated with approximately a 3% reduction in sustainability accounting disclosure. This finding strongly rejects H02 at the 1% significance level but in a direction diametrically opposed to the positive relationship predicted by agency theory and signalling theory. The highly significant negative ACE-SAD relationship is the most counterintuitive and theoretically consequential finding of this study. It reveals that financially expert audit committee members in Nigerian listed non-financial firms directed their substantial oversight capacity exclusively toward financial reporting compliance, internal control quality and regulatory reporting obligations, without extending this governance expertise to voluntary sustainability accounting disclosure oversight. In the Nigerian institutional environment where sustainability reporting is voluntary, where no regulatory obligation exists for audit committees to oversee sustainability disclosures, and where financial reporting compliance represents the dominant legitimacy expectation for audit governance, financially expert audit committees produced lower rather than higher sustainability disclosures, as their intensive financial oversight activities crowded out any attention to voluntary sustainability reporting governance. This finding is consistent with Oyerogba et al. (2022), Erin et al. (2022) and Gbadago (2025), who documented analogous negative audit committee effectiveness-sustainability disclosure relationships in Nigerian and West African firms. The result rejects H02, concluding that audit committee effectiveness has a significant though negative and counterintuitive direct effect on sustainability accounting disclosure.

Concerning the control variables, firm size was not significant in Model 1 ($p = 0.137$, $\beta = 0.0049$). Still, it was highly significant and positive in Model 2 ($p = 0.000$, $\beta = 0.0106$), suggesting that size effects on sustainability disclosure were more consistently captured in the audit committee effectiveness model. Firm age was positive and highly significant in both models: Model 1 ($p = 0.000$, $\beta = 0.0619$) and Model 2 ($p = 0.006$, $\beta = 0.0403$), confirming that more established firms demonstrated stronger sustainability disclosure behaviour across both governance specifications. Leverage was not statistically significant in either model (Model 1: $p = 0.122$; Model 2: $p = 0.393$), indicating that the debt financing structure of Nigerian listed non-financial firms did not independently drive sustainability accounting disclosure during the study period.

5. Conclusions and Recommendations

This study investigated the effect of corporate governance quality operationalised through board composition and audit committee effectiveness on sustainability accounting disclosure among 74 listed non-financial firms in Nigeria over the period 2015 to 2024. Two separate FGLS models were estimated, and the regression analysis provided interesting findings on which the following conclusions are based.

Board composition did not exert a statistically significant direct effect on sustainability accounting disclosure ($\beta = -0.0386$, $p = 0.054$). This finding reveals that the proportion of non-executive directors on the boards of Nigerian listed non-financial firms was insufficient to drive meaningful sustainability reporting improvements during the study period. The borderline negative coefficient demonstrates that board independence in Nigerian firms operated in a ceremonial rather than substantive manner, satisfying the formal requirements of the corporate governance

code without genuinely directing governance oversight toward sustainability disclosure objectives. The study therefore concludes that board composition does not significantly influence sustainability accounting disclosure in the current Nigerian institutional context, a conclusion that challenges the unconditional positive prediction of agency theory and confirms the institutional conditionality of governance-disclosure relationships in emerging economy environments characterised by weak regulatory enforcement and compliance-driven governance cultures.

Similarly, audit committee effectiveness exerted a highly significant negative direct effect on sustainability accounting disclosure ($\beta = -0.0300$, $p = 0.000$). This finding demonstrates that financially expert audit committee members in Nigerian listed non-financial firms directed their expertise toward financial reporting compliance rather than sustainability reporting oversight, producing a counterintuitive negative CGQ-SAD relationship. The study therefore concludes that audit committee effectiveness, in its current form and institutional deployment in Nigerian listed firms, significantly but negatively influences sustainability accounting disclosure. This conclusion constitutes the most important empirical contribution of this study and fundamentally challenges the positive audit committee-disclosure prediction of agency theory, signalling theory and legitimacy theory. The negative direction of this effect reveals that financial expertise in audit governance is institutionally domain-specific in Nigeria, operating exclusively in the financial reporting legitimacy domain rather than extending to the sustainability disclosure domain where voluntary reporting incentives remain weak.

The overarching conclusion drawn from both findings is that corporate governance quality in Nigerian listed non-financial firms operates in a compliance-driven orientation focused on financial reporting accountability rather than sustainability transparency. Both board composition and audit committee effectiveness, the two primary dimensions of CGQ examined in this study, produced governance outcomes inconsistent with the positive sustainability disclosure predictions of agency theory, legitimacy theory and stakeholder theory, demonstrating that the institutional prerequisites for these theories' positive governance-disclosure predictions were absent in Nigeria during the study period. This conclusion enriches the theoretical understanding of governance-disclosure relationships in emerging economies. It extends the boundary conditions of the major corporate governance theories by demonstrating that their positive disclosure predictions are institutionally conditioned on the existence of substantive governance independence, active stakeholder ESG activism, regulatory sustainability disclosure mandates and genuine board sustainability governance competency, all of which were insufficiently developed in Nigeria's listed non-financial firm sector during 2015 to 2024.

A number of recommendations follow from these findings. First, for Nigerian listed non-financial firms, board governance reforms should move substantively beyond formal compliance with independence requirements toward the appointment of non-executive directors with demonstrated sustainability governance expertise and the establishment of board-level sustainability committees. Currently, the formal independence of Nigerian boards, reflected in their relatively high board composition ratios, produces no sustainability disclosure benefit because this independence is ceremonial rather than substantive. Converting nominal board independence into substantive sustainability governance oversight through sustainability-qualified director appointments, board sustainability committee mandates, and the integration of sustainability performance targets into board evaluation frameworks would create the governance conditions necessary for board composition to generate the positive sustainability disclosure effects that agency theory predicts. Second, the audit committee effectiveness-SAD relationship requires the most urgent governance intervention identified in this study. It is recommended that the mandates of audit committees of Nigerian listed non-financial firms be explicitly expanded to include sustainability reporting oversight alongside their established financial reporting responsibilities. Audit committee terms of reference should require the committee to review and approve sustainability disclosures prior to publication, engage external sustainability assurance providers and include at least one member with demonstrated ESG reporting expertise alongside the existing financial expertise requirement.

Third, for the Securities and Exchange Commission and the Financial Reporting Council of Nigeria, the findings provide compelling evidence for the revision of the Nigerian Code of Corporate Governance to mandate sustainability governance competency disclosures for board members and audit committee members, require listed companies to establish board-level sustainability committees, integrate ESG performance metrics into executive compensation reporting, and mandate external sustainability assurance from 2026 in advance of full mandatory IFRS S1 and S2 adoption from 2028. These regulatory reforms would provide the institutional catalyst necessary to redirect the considerable governance capacity of Nigerian corporate boards and audit committees from exclusive

financial reporting compliance toward comprehensive sustainability accountability, directly addressing the compliance-driven governance orientation documented in this study. Fourth, for the Nigerian Exchange Group, the development of ESG governance quality ratings assessing the substantive rather than formal independence and sustainability orientation of boards and audit committees would create the market-level accountability pressures needed to incentivise Nigerian listed firms to develop governance structures that genuinely drive sustainability disclosure improvement.

This study has several limitations. Board composition was measured solely as the proportion of non-executive directors without distinguishing between the quality of director independence, their sustainability expertise or their stakeholder engagement orientation. Audit committee effectiveness was limited to the proportion of financially expert members without capturing sustainability reporting expertise, meeting frequency or engagement with external sustainability assurance. Findings are restricted to NGX-listed non-financial firms. Future research should investigate the CGQ-SAD relationship under mandatory IFRS S1 and S2 reporting conditions from 2028, examine whether the appointment of sustainability-qualified non-executive directors and audit committee members reverses the negative or insignificant CGQ-SAD relationships documented in this study, and conduct cross-country comparative analyses across Sub-Saharan African emerging economies to assess the institutional generalisability of these counterintuitive governance-disclosure findings.

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