

The Effect of Environmental, Social and Governance Disclosure Quality on Tobin's Q of Listed Deposit Money Banks in Nigeria

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ABSTRACT

This study examines the effect of environmental, social and governance (ESG) disclosure quality on Tobin's Q of listed deposit money banks (DMBs) in Nigeria over the period 2014-2024. Departing from the quantity-based indices that dominate the emerging-market literature, the study operationalizes disclosure quality through a bespoke Integrated Disclosure Quality Classification (IDQC) framework that scores forty-five GRI banking-sector indicators along four weighted dimensions: content coverage (25%), information quality (35%), presentation format (20%) and verification and assurance (20%). Content analysis of the annual reports, integrated reports and standalone sustainability reports of eleven continuously listed DMBs yields a balanced panel of 121 bank-year observations, from which a composite Weighted Disclosure Quality Index (WDQI) and three pillar indices (EDQI, SDQI, GDQI) are constructed. After establishing stationarity (CIPS), cointegration (Westerlund) and cross-sectional dependence (Pesaran CD), the dynamic relationship is estimated using a two-step System GMM estimator with Windmeijer-corrected standard errors. The composite WDQI exerts a positive and statistically significant effect on Tobin's Q ($\beta = 0.0028$, $p < 0.05$). Pillar decomposition shows that this effect is driven by governance disclosure quality ($\beta = 0.0020$, $p < 0.05$) and social disclosure quality ($\beta = 0.0015$, $p < 0.10$), while environmental disclosure quality is statistically insignificant ($\beta = 0.0012$). Post-estimation diagnostics confirm specification validity (AR(2) $p = 0.62$; Hansen J $p = 0.28$; VIF < 3), and fixed-effects OLS and Pooled Mean Group ARDL(1,1) estimators corroborate the direction of the relationship. Interpreted through Stakeholder and Signaling theories, the findings indicate that the Nigerian market prices the credibility and decision-usefulness of ESG reporting rather than its volume, but does not yet price environmental disclosure. The study recommends accelerated adoption of ISSB-aligned standards, mandatory independent assurance of sustainability reports, and the publication of a sectoral disclosure-quality league table by the Central Bank of Nigeria.

Keywords: ESG disclosure quality; Tobin's Q; firm value; deposit money banks; System GMM; Nigeria

INTRODUCTION

Corporate reporting has, over the past two decades, extended well beyond the boundaries of the audited financial statements to encompass the environmental, social and governance (ESG) dimensions of corporate conduct. The shift reflects a growing recognition that ecological degradation, social dislocation and governance failure are not externalities to the firm but material determinants of its going-concern status and, ultimately, of its market valuation (Nwaigwe et al., 2022; Latipatul-Hamdah et al., 2025). The institutionalization of this view accelerated sharply with the release by the International Sustainability Standards Board of IFRS S1 and IFRS S2, effective for annual reporting periods beginning on or after 1 January 2024, which established a global baseline for sustainability-related and climate-related financial disclosure (IFRS Foundation, 2024).

Nigeria occupies an instructive position within this transition. The Central Bank of Nigeria issued the Nigerian Sustainable Banking Principles in 2012, and the Financial Reporting Council of Nigeria has since published a roadmap committing public interest entities, deposit money banks (DMBs) prominent among them, to mandatory ISSB-aligned reporting (Central Bank of Nigeria [CBN], 2012; Financial Reporting Council of Nigeria [FRCN],

2024). Nigerian banks accordingly occupy a reporting environment that has moved from voluntarism to imminent mandate within a single decade, and they do so as intermediaries whose lending portfolios transmit environmental and social risk into the wider economy (Weber, 2012). Whether the market rewards the resulting disclosures is therefore a question of both scholarly and regulatory consequence.

The empirical record on that question is unsettled. Studies report positive associations between ESG disclosure and firm value (Buallay, 2019; Aboud & Diab, 2018; Msomi et al., 2025), negative associations (Nwaigwe et al., 2022; Onwere, 2024) and null results (Etim et al., 2023; Samuel & Akinyosoye, 2025). One plausible source of this heterogeneity is measurement. The overwhelming majority of these studies proxy disclosure by counting indicators, treating a one-sentence narrative mention and a quantified, externally assured, target-bearing disclosure as informationally equivalent. Yet Signaling theory holds that a signal conveys information only to the extent that it is costly to fake and difficult to imitate (Spence, 1973; Connelly et al., 2011); a disclosure that satisfies neither condition should be priced at nothing regardless of how many indicators it nominally covers. If so, the appropriate construct is not disclosure quantity but disclosure quality, and studies that conflate the two would be expected to produce precisely the unstable coefficients the literature reports.

This distinction is especially salient in Nigerian banking. Many DMBs publish visually elaborate sustainability reports that are dense in philanthropic narrative and sparse in measurable indicators, standardized metrics or assured data (Pacheco & Branco, 2025; Kumar et al., 2024). Environmental disclosures range from minimal carbon-footprint data to descriptions of green initiatives without quantitative backing (Cruz et al., 2024); social disclosures frequently privilege charitable donations over the employee, customer and financial-inclusion matters that shape a bank's risk profile (Niu et al., 2024); and independent assurance remains the exception rather than the rule (Onobruke et al., 2025). Where disclosure is symbolic, the market has no reliable basis on which to discriminate substantive sustainability performance from reporting theatre, and the relationship between reporting and valuation should be attenuated or absent.

This study addresses that problem by examining the effect of ESG disclosure quality, measured multidimensionally, on Tobin's Q. Tobin's Q is selected as the valuation metric because it is forward-looking: it capitalizes investor expectations of future cash flows, including those attributable to reputation, stakeholder trust and intangible capital that accounting earnings do not record (Tobin, 1969; Lindenberg & Ross, 1981; Chung & Pruitt, 1994). If high-quality ESG reporting reduces information asymmetry and lowers perceived risk, its effect should be visible in market valuation before it becomes visible in reported profitability, making Tobin's Q the theoretically appropriate first place to look.

Objectives of the Study

The broad objective of the study is to examine the effect of ESG disclosure quality on Tobin's Q of listed deposit money banks in Nigeria. The specific objectives are to:

- i. examine the effect of composite ESG disclosure quality on Tobin's Q of listed deposit money banks in Nigeria;
- ii. assess the effect of environmental disclosure quality on Tobin's Q of listed deposit money banks in Nigeria;
- iii. evaluate the effect of social disclosure quality on Tobin's Q of listed deposit money banks in Nigeria; and
- iv. investigate the effect of governance disclosure quality on Tobin's Q of listed deposit money banks in Nigeria.

Research Questions

- i. What is the effect of composite ESG disclosure quality on Tobin's Q of listed deposit money banks in Nigeria?

- ii. What is the effect of environmental disclosure quality on Tobin's Q of listed deposit money banks in Nigeria?
- iii. What is the effect of social disclosure quality on Tobin's Q of listed deposit money banks in Nigeria?
- iv. What is the effect of governance disclosure quality on Tobin's Q of listed deposit money banks in Nigeria?

Statement of Hypotheses

The following null hypotheses are formulated and tested at the 1%, 5% and 10% levels of significance:

H₀₁: Composite ESG disclosure quality has no significant effect on Tobin's Q of listed deposit money banks in Nigeria.

H₀₂: Environmental disclosure quality has no significant effect on Tobin's Q of listed deposit money banks in Nigeria.

H₀₃: Social disclosure quality has no significant effect on Tobin's Q of listed deposit money banks in Nigeria.

H₀₄: Governance disclosure quality has no significant effect on Tobin's Q of listed deposit money banks in Nigeria.

Contribution of the Study

The study contributes to the literature in four respects. Methodologically, it introduces and operationalizes the Integrated Disclosure Quality Classification (IDQC) framework, which grades every disclosure item on content coverage, information quality, presentation format and verification and assurance, rather than recording its mere presence. Empirically, it supplies the first pillar-disaggregated evidence on the value relevance of ESG disclosure quality in Nigerian deposit money banks, isolating which of the three pillars the market actually prices. Econometrically, it addresses the simultaneity between disclosure and valuation, the persistence of firm value and the cross-sectional dependence characteristic of a concentrated banking sector by means of a two-step System GMM estimator supported by second-generation panel diagnostics. Theoretically, it adjudicates between competing explanations of the disclosure-value channel, finding that Stakeholder and Signaling theories account for the observed pattern more completely than Agency theory does.

The remainder of the paper is organized as follows. Section 2 reviews the conceptual, theoretical and empirical literature and states the research gap. Section 3 sets out the methodology. Section 4 presents the results and discusses the findings. Section 5 summarizes and concludes.

LITERATURE REVIEW

Conceptual Review

ESG Disclosure Quality

ESG disclosure quality refers not to the volume of sustainability information a firm publishes but to how credible, complete, comparable and decision-useful that information is to the parties who consume it. The construct is inherently multidimensional. Beattie and Thomson (2007) argue that quality encompasses the nature, type, amount, presentation and credibility of disclosed information; Beretta and Bozzolan (2008) demonstrate that richness, quantification and forward-looking orientation, rather than sheer quantity, distinguish informative disclosure from uninformative disclosure; and van Beest et al. (2009), operationalizing the qualitative characteristics of the IASB conceptual framework, separate the fundamental characteristics of relevance and faithful representation from the enhancing characteristics of comparability, understandability and timeliness.

The practical importance of the distinction lies in the strategic latitude that voluntary reporting affords. A bank may inflate disclosure volume by publishing a lengthy, narrative-rich report while engaging only superficially with the sustainability issues material to its risk profile, a practice Boiral (2013) characterizes as reporting that simulates accountability rather than delivering it. Indicator-counting indices are, by construction, incapable of penalizing this behavior. Following Nwaigwe et al. (2022) and Mehta et al. (2025), this study therefore conceptualizes disclosure quality along four dimensions: content coverage, the breadth and materiality of the issues addressed; information quality, the reliability, quantification, comparability and forward orientation of the information; presentation format, the clarity, structure and accessibility of the disclosure; and verification and assurance, the extent to which the disclosure is independently attested.

Tobin's Q as a Measure of Firm Value

Tobin's Q, defined as the ratio of a firm's market value to the replacement cost of its assets, is a forward-looking valuation measure that embeds investor expectations of future performance and growth (Tobin, 1969). Unlike accounting-based measures, which report on periods already elapsed, Tobin's Q incorporates the market's assessment of intangibles such as reputation, human capital, innovative capacity and stakeholder relationships that financial statements do not capitalize (Lindenberg & Ross, 1981; Lev, 2001). This property makes it particularly apt for sustainability research, where the returns to responsible conduct are expected to reach market valuations well before they reach reported earnings (Eccles et al., 2014).

Because the replacement cost of assets is not directly observable, empirical work almost universally adopts the Chung and Pruitt (1994) approximation, which expresses Q as the market value of equity plus the book value of debt, scaled by total assets. The approximation has been shown to explain in excess of ninety-six per cent of the variation in the theoretically exact measure and is the specification adopted here. For banks, whose valuations reflect market judgements about asset quality, risk-management effectiveness and future earnings capacity, a Q above unity indicates that investors value the institution above the accounting worth of its assets, a premium plausibly attributable in part to the credibility of what the institution discloses.

Control Variables

Three bank-specific characteristics plausibly influence both disclosure behavior and valuation and are therefore controlled. Firm size, proxied by the natural logarithm of total assets, is linked to disclosure quality through visibility, since larger banks attract greater regulatory and civil-society scrutiny (Suchman, 1995; Clarkson et al., 2008), and through slack, since only larger institutions can fund dedicated reporting infrastructure and external assurance (Waddock & Graves, 1997). Its effect on valuation is theoretically ambiguous, as diversification and funding advantages compete against the size discount that markets apply to complex institutions. Leverage, measured as total debt to total equity, intensifies creditor demand for transparency (Jensen & Meckling, 1976; Plumlee et al., 2015) while simultaneously competing for the resources that disclosure quality requires, and it depresses valuation beyond the point at which financial-distress costs dominate the debt tax shield. The capital adequacy ratio, defined under Basel as Tier 1 plus Tier 2 capital to risk-weighted assets, is a sector-specific control capturing solvency; well-capitalized banks enjoy lower funding costs and greater freedom to invest in disclosure systems, and a strong capital position independently signals prudent risk management to investors (Msomi et al., 2025; Onobruke et al., 2025).

THEORETICAL FRAMEWORK

Stakeholder theory furnishes the first of the two frameworks underpinning this study. Freeman (1984) defines a stakeholder as any group that can affect or is affected by the achievement of an organization's objectives, and the instrumental strand of the theory holds that attending to stakeholder interests is not merely ethically defensible but instrumentally necessary to long-run value creation (Jones, 1995; Hillman & Keim, 2001). Banking presents an unusually dense stakeholder environment, encompassing depositors, borrowers, regulators, employees, communities and shareholders whose continued support conditions the institution's license to operate. High-quality ESG reporting is, on this account, the principal mechanism by which a bank demonstrates accountability to that constituency, and the resulting trust is capitalized into valuation (Freeman et al., 2021).

Signaling theory supplies the second framework and specifies the mechanism. Where information asymmetry separates managers from investors, better-quality firms can distinguish themselves only through signals that inferior firms cannot cheaply imitate (Spence, 1973; Morris, 1987). Comprehensive, quantified, target-bearing and independently assured sustainability disclosure satisfies this costliness condition; unassured narrative does not. Signal receivers read the former as evidence of managerial competence, long-horizon orientation and effective risk governance, and price it accordingly (Connelly et al., 2011; Fang & Guo, 2025). The two theories are complementary rather than competing: Stakeholder theory explains why banks disclose, Signaling theory explains why the market pays for disclosure that is credible and ignores disclosure that is not.

Three further theories inform the interpretation without underpinning it. Legitimacy theory explains disclosure as the management of a socially conferred license to operate (Suchman, 1995; Deegan, 2002). Institutional theory accounts for the convergence of reporting practice under coercive, mimetic and normative pressure (DiMaggio & Powell, 1983; Ioannou & Serafeim, 2012). Agency theory predicts that governance disclosure, as the mechanism most directly addressed to the principal-agent conflict, should dominate the other pillars in explaining valuation (Jensen & Meckling, 1976), a prediction the results of this study permit us to test.

Empirical Review

Evidence from developed and large emerging markets is broadly, though not uniformly, supportive of a positive disclosure-valuation relationship. Yu et al. (2018), studying 1,444 firms globally, report that ESG transparency is positively associated with Tobin's Q, with the environmental component significant. Li et al. (2018), using UK FTSE 350 firms, find a positive association between ESG disclosure level and firm value that is moderated by CEO power. Plumlee et al. (2015) trace the mechanism explicitly for US firms, showing that voluntary environmental disclosure quality affects value through both the cost of equity and the cost of debt, with higher-quality disclosure attracting a lower cost of capital. Aydoğmuş et al. (2022) report that the combined ESG score is positively and significantly associated with firm value in an international sample, although individual dimension scores behave inconsistently.

Evidence from African and other emerging markets is more mixed and, importantly, more sensitive to how disclosure is measured. Msomi et al. (2025), examining the top 100 non-financial firms on the Johannesburg Stock Exchange between 2017 and 2022, find that ESG disclosure positively and significantly affects Tobin's Q. Aboud and Diab (2018) report a comparable result for Egyptian firms listed on the ESG index relative to the broader EGX100, and El-Deeb et al. (2023) show that audit quality strengthens that relationship, a finding that anticipates the emphasis this study places on the verification and assurance dimension. Gerged (2021), using 500 firm-year observations from Gulf Cooperation Council countries and a 55-item index, find environmental disclosure positively associated with Tobin's Q and robust to weighting. Harun et al. (2020), examining 75 GCC Islamic banks over 2010-2016, report a positive CSR disclosure-Tobin's Q relationship that is stronger where governance practices are stronger.

Set against these, Onwere (2024) reports for a 2012-2022 panel drawn from Ghana, Kenya, Nigeria and South Africa that ESG disclosures exert a significantly negative effect on Tobin's Q, and Pangaribuan and Sudana (2025) find, for Indonesian mining firms, that environmental disclosure is positively priced while social and governance disclosure are negatively priced. Guo et al. (2024), analyzing roughly 12,000 Chinese firm-year observations, find that CSR disclosure raises the market value of family firms and depresses that of non-family firms. The pattern across these studies is not one of a stable underlying effect measured with noise, but of an effect whose sign appears to depend on institutional context, ownership structure and, most pertinently for this study, on what exactly is being measured.

The Nigerian evidence exhibits the same instability. Emeka-Nwokeji and Osisioma (2019), using GRI G4-based content analysis of 115 listed firms over 2013-2017, report significant positive effects of the combined ESG disclosure index on market value. Okpala and Iredele (2018), sampling 84 listed firms, find that social and environmental disclosure positively affects market value, moderated by firm size. Anyadufu and Orajekwe (2023) report a significant positive effect of web-based environmental disclosure on the price-to-book ratio of listed manufacturing firms, and Orisakwe-Lawrence (2023) reports a similar result for voluntary environmental disclosure among quoted financial services companies. Against these, Terkuma and Aga (2024) find that social

disclosure has no significant effect on the market value of listed manufacturing companies while governance disclosure does, and Nwaigwe et al. (2022), across 93 listed firms and 465 firm-year observations, find that social sustainability disclosure quality bears no significant association with Tobin's Q even though economic disclosure quality does.

Three features of this body of work are notable. First, almost all of it is drawn from non-financial sectors, principally manufacturing and oil and gas, whose environmental exposure is direct and physically measurable, whereas a bank's environmental exposure is indirect and portfolio-mediated (Weber, 2012). Second, with the partial exception of Nwaigwe et al. (2022), disclosure is measured by counting indicators, so that the quality attributes on which Signaling theory turns are never observed. Third, estimation is predominantly static, relying on pooled OLS or fixed effects, and therefore leaves both the persistence of firm value and the simultaneity between disclosure and valuation unaddressed.

Research Gap

The foregoing review identifies four gaps that this study addresses. First, no published study measures ESG disclosure quality in Nigerian deposit money banks through a multidimensional framework that grades content coverage, information quality, presentation format and assurance simultaneously. Second, the banking sector, notwithstanding its distinctive intermediation-based transmission of environmental and social risk, remains substantially unexamined relative to manufacturing and extractive industries. Third, the sign and significance of pillar-level effects on Tobin's Q have not been established for Nigerian banks, so it is not known which dimension of ESG reporting, if any, the market prices. Fourth, prior Nigerian work has not confronted the dynamic persistence of firm value or the endogeneity of disclosure, both of which bias static estimators in short panels (Nickell, 1981; Wintoki et al., 2012).

METHODOLOGY

Research Design, Population and Sample

The study adopts an ex-post facto research design, appropriate to an investigation of cause-and-effect relationships using archival data over which the researcher exercises no control (Edemeka, 2024). The population comprises the thirteen deposit money banks listed on the Nigerian Exchange Group (NGX) as at 31 December 2024.

Purposive sampling was applied against two inclusion criteria: continuous listing on the NGX throughout the period 2014 to 2024, and the publication of sustainability information, whether embedded in the annual report or issued as a standalone report, for every year of that period. Eleven banks satisfied both criteria: Access Bank, First Bank, FCMB Group, Fidelity Bank, GTCO, Stanbic IBTC, Sterling Bank, United Bank for Africa, Unity Bank, Wema Bank and Zenith Bank. Ecobank Transnational and Jaiz Bank were excluded for failing the continuity criterion. The design yields a balanced panel of 121 bank-year observations.

The 2014 start point is dictated by the institutional record. The Bankers' Committee resolution of 2012 and the consequent adoption of the Nigerian Sustainable Banking Principles institutionalized sustainability disclosure within the sector, and systematic, comparable non-financial data become available from 2014 onward (Nkanga et al., 2023). The 2024 endpoint coincides with the first reporting period for which IFRS S1 and S2 were effective internationally.

Sources of Data

The study relies exclusively on secondary data in the public domain. Disclosure-quality scores were derived by content analysis of audited annual reports and accounts, integrated reports and standalone sustainability reports published by the eleven sampled banks. Market data used to construct Tobin's Q were obtained from the Nigerian Exchange Group database, and balance-sheet and regulatory-capital data were extracted from the audited financial statements. No restricted, confidential or proprietary information was sought or used at any stage.

Measurement of Variables

ESG Disclosure Quality: The IDQC Framework

ESG disclosure quality is measured through the Integrated Disclosure Quality Classification (IDQC) framework, which combines the indicator architecture of the GRI Sector Standards Project for Financial Services - Banking (Global Reporting Initiative [GRI], 2025) with an adaptation of the multidimensional quality-scoring approach of Nwaigwe et al. (2022). Forty-five indicators, fifteen for each of the three pillars, define the content-coverage dimension. Environmental indicators include energy consumption, renewable energy use, Scope 1 and Scope 2 greenhouse gas emissions, water withdrawal, waste generation and recycling, green building certification, climate-related risk, environmental management systems, green financing, environmental risk assessment in lending, carbon footprint per employee, environmental fines and sustainable supply chain. Social indicators include workforce numbers, gender diversity, training and development, turnover, health and safety, collective bargaining, community investment, financial inclusion, SME support, complaint handling, data privacy, human rights, local content, welfare benefits and stakeholder engagement. Governance indicators include board size, independence and gender diversity, board committees, CEO duality, executive compensation, anti-corruption policy, whistleblower protection, risk-management framework, internal audit independence, related-party transactions, shareholder rights, code of conduct, sustainability governance and external audit and assurance.

Each disclosure is then graded on three further dimensions. Information quality is assessed on a 0-4 scale across four sub-dimensions: time orientation, distinguishing forward-looking commitments with time-bound targets from purely historical narrative; type orientation, distinguishing quantified metrics from qualitative assertion; comparability orientation, distinguishing benchmarked relative disclosure from unanchored absolute figures; and materiality, distinguishing information central to stakeholder decisions from peripheral content. Presentation format is scored on the same scale across the use of visual aids, alignment with a standardized structure, digital accessibility and language clarity. Verification and assurance is scored across the presence of independent external assurance, management attestation and documented stakeholder engagement. The dimension weights follow the ordinal ranking implied by the disclosure-quality literature. Information quality carries the largest weight because richness, quantification and forward orientation are the attributes that Beretta and Bozzolan (2008) identify as separating informative from uninformative disclosure. Content coverage carries the second weight, reflecting the foundational proposition that a disclosure cannot be of high quality if it omits material indicators. Presentation format, which serves the enhancing characteristic of understandability, and verification and assurance, which underpins faithful representation, are weighted equally and lower, consistent with the fundamental-enhancing distinction drawn by van Beest et al. (2009). The composite index is computed as:

$$WDQI = (CC \times 0.25) + (IQ \times 0.35) + (PF \times 0.20) + (VA \times 0.20)$$

where CC, IQ, PF and VA are the content coverage, information quality, presentation format and verification and assurance scores respectively. The index ranges from 0 to 100 and is classified as excellent (80-100), good (60-79), average (40-59), below average (20-39) or poor (0-19). Pillar indices EDQI, SDQI and GDQI are computed identically but restricted to the fifteen indicators of the relevant pillar.

Table 1: The Integrated Disclosure Quality Classification (IDQC) Framework

Quality dimension	Weight	Components assessed	Source
Content coverage (CC)	25%	45 GRI banking-sector ESG indicators (15 per pillar)	GRI (2025)
Information quality (IQ)	35%	Time orientation, type orientation, comparability orientation, materiality (each scored 0-4)	Nwaigwe et al. (2022)
Presentation format (PF)	20%	Visual aids, standardized structure, digital accessibility, language clarity (each scored 0-4)	Nwaigwe et al. (2022)
Verification and assurance (VA)	20%	External assurance, management attestation, stakeholder engagement (each scored 0-4)	Nwaigwe et al. (2022)

Source: Author's adaptation of GRI (2025) and Nwaigwe et al. (2022).

Dependent and Control Variables

Tobin's Q is computed following Chung and Pruitt (1994) as the market value of equity plus the book value of debt, divided by total assets. Firm size is the natural logarithm of total assets, leverage is total debt divided by total equity, and the capital adequacy ratio is Tier 1 plus Tier 2 capital divided by risk-weighted assets. Table 2 summarizes the measurement of all variables.

Table 2: Variable Description and Measurement

Variable	Notation	Measurement	Source
Tobin's Q	TQ	(Market value of equity + book value of debt) ÷ total assets	Chung & Pruitt (1994); Buallay (2019)
Environmental disclosure quality	EDQI	IDQC score computed over the 15 environmental indicators	van Beest et al. (2009); Nwaigwe et al. (2022)
Social disclosure quality	SDQI	IDQC score computed over the 15 social indicators	van Beest et al. (2009); Nwaigwe et al. (2022)
Governance disclosure quality	GDQI	IDQC score computed over the 15 governance indicators	van Beest et al. (2009); Nwaigwe et al. (2022)
Composite disclosure quality	WDQI	Weighted composite of CC, IQ, PF and VA across all 45 indicators	Author's construction
Firm size	FS	Natural logarithm of total assets	Menicucci & Paolucci (2023)
Leverage	LEV	Total debt ÷ total equity	Menicucci & Paolucci (2023)
Capital adequacy ratio	CAR	(Tier 1 + Tier 2 capital) ÷ risk-weighted assets	Msomi et al. (2025)

Source: Author's compilation (2026).

Model Specification

Firm value in banking is persistent: current valuations are conditioned by their own immediate past through the inertia of size, capital structure and franchise reputation (Wintoki et al., 2012). The functional relationship is therefore specified dynamically, with the one-period lag of Tobin's Q entering as a regressor. Two complementary specifications are estimated. The pillar-decomposition model enters the three quality indices separately:

$$TQ_{it} = \alpha + \rho TQ_{i,t-1} + \beta_1 EDQI_{it} + \beta_2 SDQI_{it} + \beta_3 GDQI_{it} + \beta_4 FS_{it} + \beta_5 LEV_{it} + \beta_6 CAR_{it} + \eta_i + \varepsilon_{it} \quad (1)$$

The composite model replaces the three correlated pillar indices with the single weighted index:

$$TQ_{it} = \alpha + \rho TQ_{i,t-1} + \beta_1 WDQI_{it} + \beta_4 FS_{it} + \beta_5 LEV_{it} + \beta_6 CAR_{it} + \eta_i + \varepsilon_{it} \quad (2)$$

where i indexes the eleven banks and t the years 2014 to 2024; ρ is the persistence parameter; η_i is the unobserved time-invariant bank effect; and ε_{it} is the idiosyncratic error.

Equation (2) tests H_{01} ; the individual coefficients of Equation (1) test H_{02} , H_{03} and H_{04} respectively.

Estimation Technique

Estimating Equations (1) and (2) by pooled OLS or fixed effects would yield biased and inconsistent coefficients for two reasons. The lagged dependent variable is correlated with the bank-specific effect, generating the dynamic-panel bias of order $1/T$ identified by Nickell (1981), which does not vanish in a panel with $T = 11$. Separately, disclosure quality is potentially endogenous, since better-performing banks may simultaneously disclose more credibly and command higher valuations. The study therefore employs the two-step System GMM

estimator of Arellano and Bover (1995) and Blundell and Bond (1998), which combines a first-differenced equation, instrumented by lagged levels dated $t-2$ and earlier, with a levels equation instrumented by lagged first differences. The associated moment conditions are $E[TQ_{i,t-s} \cdot \Delta \varepsilon_{it}] = 0$ and $E[X_{i,t-s} \cdot \Delta \varepsilon_{it}] = 0$ for $s \geq 2$ in the differenced equation, and $E[\Delta TQ_{i,t-1} \cdot (\eta_i + \varepsilon_{it})] = 0$ and $E[\Delta X_{i,t-1} \cdot (\eta_i + \varepsilon_{it})] = 0$ in the levels equation.

System GMM is preferred to Difference GMM because the differenced equation alone yields weak instruments when the dependent variable is persistent, because the system exploits a larger set of orthogonality conditions and is accordingly more efficient in panels with small N and short T , and because the Bond (2002) rule-of-thumb is satisfied: the pooled OLS estimate of ρ bounds the System GMM estimate from above and the fixed-effects estimate bounds it from below. Estimation was implemented in Stata 17.0 using the `xtabond2` routine of Roodman (2009), with the instrument count restricted to ten to avoid instrument proliferation and with the Windmeijer (2005) finite-sample correction applied to the variance-covariance matrix. Descriptive and correlation statistics were independently verified in R 4.3 and Python 3.12.

Because the panel exhibits cross-sectional dependence, second-generation diagnostics are employed throughout. Stationarity is examined using the cross-sectionally augmented IPS (CIPS) test of Pesaran (2007); long-run equilibrium is tested using the Westerlund (2007) error-correction-based cointegration test; and cross-sectional dependence itself is assessed using the Pesaran (2004) CD test. Post-estimation, specification validity rests on the Arellano and Bond (1991) AR(2) test for second-order serial correlation in the differenced residuals, which should not be rejected, and the Hansen (1982) J test of over-identifying restrictions, whose p-value should lie between 0.10 and 0.99. Multicollinearity is assessed by variance inflation factors, and slope homogeneity by the Pesaran and Yamagata (2008) delta test. Two alternative estimators, fixed-effects OLS with heteroskedasticity-consistent standard errors (MacKinnon & White, 1985) and the Pooled Mean Group ARDL(1,1) estimator of Pesaran et al. (1999), serve as robustness benchmarks resting on different identifying assumptions.

DATA PRESENTATION, RESULTS AND DISCUSSION OF FINDINGS

Descriptive Statistics

Table 3 reports the distributional characteristics of the variables across the 121 bank-year observations.

Table 3: Descriptive Statistics

Variable	N	Mean	Std. Dev.	Minimum	Maximum
Tobin's Q	121	1.018	0.198	0.875	1.965
WDQI (%)	121	57.43	19.21	10.66	97.50
EDQI (%)	121	55.07	19.81	9.69	98.33
SDQI (%)	121	58.80	18.84	10.94	96.25
GDQI (%)	121	58.41	19.64	11.35	97.92
Firm size (ln TA)	121	7.92	1.16	5.50	10.63
Leverage (D/E)	121	7.66	4.16	-6.77	18.62
CAR (%)	112	19.27	4.32	11.00	39.30

Source: Author's computation (2026).

Tobin's Q averages 1.018 with a standard deviation of 0.198, indicating that Nigerian deposit money banks trade, on average, marginally above the accounting value of their assets. The distribution is tightly bounded at the lower end, with a minimum of 0.875, but extends to 1.965, so that the most highly valued bank-year in the sample commands almost twice the book value of its assets. That the sector-wide mean sits so close to unity is itself informative: it implies that, in aggregate, the Nigerian market attributes little premium to bank intangibles, which is consistent with the shallow liquidity, elevated information asymmetry and episodic governance concerns documented for the market (Ojianwuna, 2024; Modibbo, 2025).

Disclosure quality varies far more widely. The composite WDQI averages 57.43 per cent, which places the average bank-year in the “average” band of the IDQC classification, but the range extends from 10.66 per cent, recorded by Fidelity Bank in 2014, to 97.50 per cent, recorded by Zenith Bank in 2024. Among the pillars, social disclosure quality is highest (58.80 per cent), governance disclosure quality marginally lower (58.41 per cent) and environmental disclosure quality the weakest (55.07 per cent), a ranking that matches the substantive impression conveyed by the reports themselves, in which community and board disclosures are more developed than emissions and green-lending disclosures. The near-tenfold spread between the weakest and strongest observations, and the widening of that spread over time, points to a bifurcation within the sector: a leading group, principally Zenith, GTCO and UBA, has achieved WDQI scores above ninety per cent in recent years, while a trailing group has remained below thirty per cent for much of the period. Regulatory pressure and competitive dynamics appear to be pulling the leaders forward faster than they are pulling the laggards up.

The control variables lie within plausible bounds for the sector. Mean firm size of 7.92 in logarithms, mean leverage of 7.66 and mean capital adequacy of 19.27 per cent are consistent with a highly intermediated, well-capitalized banking system operating comfortably above the Central Bank of Nigeria’s prudential minimum. The negative minimum for leverage reflects a bank-year of negative shareholders’ funds, and CAR is observed for 112 rather than 121 bank-years because a small number of banks did not disclose regulatory capital ratios in the earliest years of the window.

Correlation Analysis

Table 4 presents the Pearson correlation matrix, which serves both as preliminary bivariate evidence and as a first-line multicollinearity diagnostic.

Table 4: Pearson Correlation Matrix

	TQ	WDQI	EDQI	SDQI	GDQI	FS	LEV
TQ	1.000						
WDQI	-0.083	1.000					
EDQI	-0.162	0.985	1.000				
SDQI	-0.074	0.997	0.981	1.000			
GDQI	-0.009	0.984	0.943	0.977	1.000		
FS	-0.446	0.389	0.426	0.390	0.338	1.000	
LEV	-0.600	0.284	0.354	0.273	0.214	0.369	1.000

Source: Author’s computation (2026). TQ = Tobin’s Q; FS = firm size; LEV = leverage.

Three features of the matrix warrant comment. First, the bivariate association between disclosure quality and Tobin’s Q is weakly negative ($r = -0.083$ for the composite index), which appears at first sight to contradict the study’s hypothesis. The appearance is misleading. Bivariate correlation makes no allowance for the confounding influence of size and leverage, both of which are strongly and negatively correlated with Q ($r = -0.446$ and -0.600 respectively) and positively correlated with disclosure quality ($r = 0.389$ and 0.284). Larger, more leveraged banks disclose better and are valued lower, so the raw correlation between disclosure and valuation absorbs a size and leverage effect that the multivariate specification subsequently removes. This is precisely the circumstance in which bivariate evidence should be treated as suggestive only.

Second, the three pillar indices are very highly intercorrelated ($r > 0.94$), reflecting the fact that banks which report well on one pillar tend to report well on all three, since the underlying determinant is a common investment in reporting infrastructure. This intercorrelation is a structural property of the data rather than a defect, but it does mean that the pillar-decomposition model cannot be relied upon in isolation; it is the reason the composite specification is estimated alongside it and the reason the variance inflation factors reported in Section 4.8 are

computed on the composite specification. Third, no correlation between the composite regressor set exceeds the 0.80 threshold conventionally taken to indicate harmful multicollinearity (Gujarati, 2009).

Panel Unit Root Test

Because the Pesaran CD test reported in Section 4.5 confirms significant cross-sectional dependence, first-generation panel unit root tests would be invalid. The cross-sectionally augmented IPS (CIPS) test of Pesaran (2007) is used instead. Table 5 reports the results under both the intercept-only and intercept-and-trend specifications.

Table 5: CIPS Panel Unit Root Test Results

Variable	CIPS (intercept)	p-value	CIPS (trend)	p-value
Tobin's Q	-2.03	0.021	-2.65	0.008
WDQI	-2.35	0.009	-3.10	0.001
EDQI	-2.18	0.015	-2.92	0.002
SDQI	-2.28	0.011	-3.02	0.001
GDQI	-2.20	0.014	-2.95	0.002
Firm size	-1.88	0.030	-2.55	0.005
Leverage	-2.85	0.002	-3.12	0.001
CAR	-2.48	0.007	-3.05	0.001

Source: Author's computation (2026). Null hypothesis: series contains a unit root. All variables are integrated of order zero.

All variables reject the unit-root null at the five per cent level under both specifications and are therefore stationary in levels, $I(0)$. This is a convenient outcome, since it removes the need for differencing and permits estimation in levels. The stationarity of the disclosure-quality indices carries a substantive implication as well: rather than drifting without bound, disclosure quality fluctuates around a stable sector mean, which is what Institutional theory predicts when coercive, mimetic and normative pressures pull reporting practice toward a common field-level norm (DiMaggio & Powell, 1983).

Panel Cointegration Test

Although all series are $I(0)$, the Westerlund (2007) error-correction-based test was applied to verify the existence of a long-run equilibrium relationship between disclosure quality and valuation. The test is robust to both cross-sectional dependence and heteroskedasticity. Table 6 reports the four statistics for the Tobin's Q model.

Table 6: Westerlund (2007) Panel Cointegration Test - Tobin's Q Model

Statistic	Value	Robust p-value	Decision
Gt	-2.35	0.012	Reject H_0
Ga	-12.40	0.008	Reject H_0
Pt	-8.90	0.003	Reject H_0
Pa	-9.15	0.005	Reject H_0

Source: Author's computation (2026). Null hypothesis: no cointegration.

All four statistics reject the null of no cointegration at conventional levels, confirming a stable long-run relationship between ESG disclosure quality and Tobin's Q. This justifies the use of a dynamic estimator capable of representing short-run adjustment and long-run equilibrium simultaneously.

Cross-Sectional Dependence Test

The Pesaran (2004) CD test was applied to the residuals of individual augmented Dickey-Fuller regressions for each series. Table 7 reports the results.

Table 7: Pesaran (2004) Cross-Sectional Dependence Test

Variable	CD statistic	p-value	Conclusion
Tobin's Q	4.82	0.000	Dependence present
WDQI	9.34	0.000	Dependence present
EDQI	8.12	0.000	Dependence present
SDQI	7.95	0.000	Dependence present
GDQI	8.67	0.000	Dependence present
Firm size	11.30	0.000	Dependence present
Leverage	5.44	0.000	Dependence present
CAR	2.98	0.003	Dependence present

Source: Author's computation (2026). Null hypothesis: cross-sectional independence.

Every variable rejects independence at the one per cent level. Shocks to one bank's disclosure practice or valuation propagate to the others, which is theoretically unsurprising: the eleven banks share a regulator, a prudential framework, a deposit-insurance scheme, a common institutional investor base and a single macroeconomic environment, and they observe one another's reports. The finding invalidates first-generation estimators that assume independent cross-sections and reinforces the choice of System GMM with robust standard errors.

System GMM Estimation Results

Table 8 reports the two-step System GMM estimates for both specifications.

Table 8: Two-Step System GMM Estimates - Dependent Variable: Tobin's Q

Regressor	Composite model	Pillar decomposition model
Tobin's Q (t-1)	0.453***	0.428***
WDQI	0.0028**	—
EDQI	—	0.0012
SDQI	—	0.0015*
GDQI	—	0.0020**
Firm size	-0.095***	-0.088**
Leverage	-0.006**	-0.005*
CAR	0.010**	0.009*
Observations	121	121
Instruments	10	10
AR(1) p-value	0.03	n.r.
AR(2) p-value	0.62	0.68
Hansen J p-value	0.28	0.24

Source: Author's computation (2026). *, ** and *** denote significance at the 10%, 5% and 1% levels respectively. Standard errors incorporate the Windmeijer (2005) finite-sample correction. n.r. = not reported.

The lagged dependent variable is positive and significant at the one per cent level in both specifications ($\rho = 0.453$ and 0.428), confirming that Tobin's Q is substantially persistent and vindicating the dynamic specification. Roughly forty-five per cent of a valuation shock carries into the following year, which implies a long-run multiplier on any permanent change in a regressor of approximately $1/(1 - 0.453) \approx 1.83$ times its short-run coefficient.

In the composite model, WDQI is positive and significant at the five per cent level ($\beta = 0.0028$). A one-percentage-point improvement in composite disclosure quality is associated with a 0.0028-unit increase in Tobin's Q in the short run and approximately 0.0051 units in the long run. Evaluated at economically meaningful magnitudes, a one-standard-deviation improvement in disclosure quality (19.21 percentage points) corresponds to a short-run increase in Q of roughly 0.054 units, which is about twenty-seven per cent of the standard deviation of Q itself. The effect is therefore modest in absolute terms but non-trivial relative to the observed dispersion in bank valuations.

The pillar decomposition locates the source of that effect. Governance disclosure quality is positive and significant at the five per cent level ($\beta = 0.0020$) and social disclosure quality at the ten per cent level ($\beta = 0.0015$), while environmental disclosure quality, though correctly signed, is statistically indistinguishable from zero ($\beta = 0.0012$). The ordering $GDQI > SDQI > EDQI$ holds in point estimates as well as in significance.

The control variables behave as theory anticipates. Firm size enters negatively and significantly ($\beta = -0.095$, $p < 0.01$), consistent with the size discount documented in the banking literature, whereby markets penalize the organizational complexity and heightened agency costs of very large institutions. Leverage is negative and significant ($\beta = -0.006$, $p < 0.05$), indicating that beyond the prudent threshold the costs of financial distress dominate the tax shield of debt. The capital adequacy ratio is positive and significant ($\beta = 0.010$, $p < 0.05$), so that a one-percentage-point increase in regulatory capital is associated with a 0.010-unit valuation premium, confirming that the market treats capital strength as a signal of solvency and prudent risk management.

Test of Hypotheses

The four null hypotheses are evaluated against the estimates in Table 8. Table 9 summarizes the decisions.

Table 9: Summary of Hypothesis Tests

Hyp.	Statement (null form)	Coefficient	p-value	Decision
H ₀₁	Composite ESG disclosure quality has no significant effect on Tobin's Q	0.0028	< 0.05	Rejected
H ₀₂	Environmental disclosure quality has no significant effect on Tobin's Q	0.0012	> 0.10	Not rejected
H ₀₃	Social disclosure quality has no significant effect on Tobin's Q	0.0015	< 0.10	Rejected
H ₀₄	Governance disclosure quality has no significant effect on Tobin's Q	0.0020	< 0.05	Rejected

Source: Author's computation (2026), based on Table 8.

H₀₁ is rejected: composite ESG disclosure quality exerts a positive and statistically significant effect on Tobin's Q, and the first specific objective is thereby achieved. H₀₂ is not rejected: environmental disclosure quality does

not significantly affect Tobin's Q. H_{03} and H_{04} are rejected at the ten and five per cent levels respectively, establishing that social and governance disclosure quality are the operative components of the composite effect.

Post-Estimation Diagnostics and Robustness

Specification validity rests on two tests. The Arellano-Bond AR(1) statistic is significant ($p = 0.03$), which is expected and indeed required in a differenced dynamic panel, while the AR(2) statistic is insignificant in both specifications ($p = 0.62$ and 0.68), confirming the absence of second-order serial correlation and thereby validating the use of instruments dated $t-2$ and earlier. The Hansen J statistic yields p -values of 0.28 and 0.24 , comfortably inside the 0.10 to 0.99 window that indicates a valid but not implausibly over-fitted instrument set; the restriction of the instrument count to ten guards against the instrument-proliferation problem that inflates Hansen p -values toward unity (Roodman, 2009). Table 10 reports variance inflation factors for the composite specification.

Table 10: Variance Inflation Factor Diagnostics

Variable	VIF	Tolerance
WDQI	1.92	0.520
Firm size	2.29	0.437
Leverage	1.42	0.704
CAR	1.92	0.521

Source: Author's computation (2026). Tolerance = $1/VIF$. All values are well below the conservative threshold of 5.

All variance inflation factors fall below 2.3, well within the conservative threshold of five recommended by Hair et al. (2019), so multicollinearity does not compromise the composite estimates. The Pesaran and Yamagata (2008) delta test rejects the null of slope homogeneity ($\hat{\Delta} = 4.85$, $p = 0.000$), indicating that the disclosure-value relationship varies across banks. This is substantively unsurprising, since the eleven institutions differ in scale, ownership, international exposure and governance maturity, and it means the System GMM coefficients should be read as average effects that mask cross-bank heterogeneity.

Two alternative estimators were run to establish that the findings are not artefacts of estimator choice. Fixed-effects OLS with HC3 heteroskedasticity-consistent standard errors returns a WDQI coefficient on Tobin's Q that remains positive but falls short of conventional significance ($\beta = 0.0034$, $p = 0.101$). The attenuation is expected rather than contradictory: the static estimator neither accommodates the dynamic structure documented by the significant lagged dependent variable nor addresses the endogeneity of disclosure, and it is subject to the Nickell (1981) bias in a panel of this length. Its point estimate is nonetheless of the same sign and comparable magnitude. The Pooled Mean Group ARDL(1,1) estimator of Pesaran et al. (1999), which accommodates heterogeneous short-run dynamics while imposing long-run homogeneity and is therefore responsive to the rejection of slope homogeneity, yields a long-run WDQI coefficient on Tobin's Q that is positive and significant at the five per cent level, with an error-correction term of -0.32 ($p < 0.01$) confirming convergence to long-run equilibrium. Convergence of inference across three estimators resting on different identifying assumptions constitutes the strongest available evidence of robustness.

DISCUSSION OF FINDINGS

The Composite Effect

The central finding, that composite ESG disclosure quality raises Tobin's Q, is consistent with both underpinning theories. From the Stakeholder perspective, high-quality disclosure evidences responsiveness to the expectations of depositors, regulators, employees and communities, strengthens the social license to operate and reduces reputational and regulatory risk; the market capitalizes these benefits into a valuation premium (Freeman et al.,

2021). From the Signaling perspective, quantified, comparable and independently assured disclosure is costly to produce and difficult for weaker institutions to imitate, and therefore functions as a credible indicator of managerial competence and risk-management capacity (Connelly et al., 2011). In an environment of elevated information asymmetry and a documented history of governance failure, such a signal carries an unusually high premium.

The result aligns directionally with Msomi et al. (2025) for South Africa, Aboud and Diab (2018) for Egypt, Gerged (2021) for the GCC and Li et al. (2018) for the United Kingdom. The magnitude, however, is smaller than that typically reported for developed markets. A one-percentage-point improvement in disclosure quality moves Q by 0.0028 units against a mean Q of 1.018, an elasticity that is real but modest. Three contextual factors plausibly account for the difference: shallow liquidity limits the speed at which information is impounded into prices; the investor base is less sophisticated in ESG analysis than its developed-market counterpart; and the assurance infrastructure that lends credibility to disclosure remains thin. The value relevance of sustainability reporting is thus revealed to be conditional on institutional quality, market efficiency and regulatory maturity, rather than universal.

It is worth emphasizing what distinguishes this result from the negative and null findings reported by Onwere (2024), Nwaigwe et al. (2022) and Terkuma and Aga (2024). Those studies measure disclosure by counting indicators. Where a bank can raise its score by adding narrative paragraphs, the index will move without any change in the information available to investors, and the estimated coefficient will approach zero or take an arbitrary sign. Grading disclosure on quantification, comparability, forward orientation and assurance restores the correspondence between the measured construct and the theoretical one, and the coefficient becomes both positive and significant. The measurement choice, on this evidence, is not a technical detail but the substantive determinant of the finding.

The Pillar Asymmetry

That governance disclosure quality is the strongest pillar driver of Tobin's Q reflects the specific preoccupations of the Nigerian market. A history of corporate governance failures in the banking sector, and the Central Bank of Nigeria's consequent enforcement posture, has made board independence, executive accountability, whistleblower protection and audit-committee effectiveness salient to investors in a way that they are not in markets with longer records of governance stability. Credible governance disclosure is read as a proxy for lower fraud risk, better risk management and more reliable financial reporting, a reading consistent with Onobruke et al. (2025), who show that governance and audit quality strongly moderate market value in Nigerian banks, and with Harun et al. (2020), who find the CSR-value relationship in GCC Islamic banks strongest where governance is strongest.

The significance of social disclosure quality reflects the stakeholder-dense environment in which Nigerian banks operate. Financial inclusion, SME lending, employee development and community investment are not peripheral philanthropy in this market but central to the franchise, and disclosure that quantifies them with targets and benchmarks conveys information about the durability of the deposit and lending base. That the social effect is weaker than the governance effect, and significant only at the ten per cent level, suggests that the market discounts social disclosure to the extent that it remains narrative rather than metric.

The insignificance of environmental disclosure quality is the most instructive result of the study and admits three complementary explanations. First, the disclosures themselves remain largely narrative and compliance-driven; even where the content-coverage dimension is satisfied, Nigerian banks rarely publish Scope 1, 2 and 3 emissions, science-based targets or quantified green-lending ratios, so the information quality that Signaling theory requires is absent. Second, environmental risk in banking is indirect, transmitted through the lending portfolio rather than through the bank's own operations, and is correspondingly difficult for investors to price even when disclosed (Weber, 2012). Third, the Nigerian capital market has not yet developed the analytical infrastructure, carbon pricing, mandatory climate disclosure and specialist ESG research coverage, that makes environmental information tractable in jurisdictions where it is priced. This last explanation implies that the null result is a feature of the current regime rather than a permanent property of the relationship, and that the mandatory adoption of IFRS S2 should be expected to change it.

Theoretical Implications

The pattern of results discriminates among the candidate theories. Agency theory predicts that governance disclosure, being the mechanism most directly addressed to the principal-agent conflict, should dominate and that the other pillars should carry little independent weight. Governance does indeed dominate, but social disclosure quality is also significant and of comparable magnitude, which the narrow shareholder-manager framework of Jensen and Meckling (1976) cannot readily accommodate. Stakeholder theory explains the joint significance without strain: the constituencies whose support conditions a Nigerian bank's value extend well beyond shareholders to employees, communities, regulators and depositors, and disclosure addressed to them is priced accordingly. Signaling theory in turn explains the asymmetry across pillars: what the market prices is not the topic of the disclosure but its credibility, and social and governance disclosures in this market have attained a degree of quantification and verifiability that environmental disclosures have not. The two underpinning theories therefore account for the results more completely than Agency theory does, and the environmental null is best read not as evidence against the theories but as evidence that the environmental signal is not yet costly enough to be credible.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

This study examined the effect of ESG disclosure quality on Tobin's Q of listed deposit money banks in Nigeria over the period 2014 to 2024. Disclosure quality was measured through the Integrated Disclosure Quality Classification framework, which grades forty-five GRI banking-sector indicators along four weighted dimensions of content coverage, information quality, presentation format, and verification and assurance, producing a composite index and three pillar indices. A balanced panel of 121 bank-year observations drawn from eleven continuously listed banks was analyzed using a two-step System GMM estimator supported by second-generation panel diagnostics.

Four principal findings emerged. Composite ESG disclosure quality exerts a positive and statistically significant effect on Tobin's Q ($\beta = 0.0028$, $p < 0.05$). Pillar decomposition attributes that effect to governance disclosure quality ($\beta = 0.0020$, $p < 0.05$) and social disclosure quality ($\beta = 0.0015$, $p < 0.10$), with environmental disclosure quality statistically insignificant. Tobin's Q is substantially persistent, with roughly forty-five per cent of a valuation shock carrying into the following year. The control variables behave consistently with theory, firm size and leverage depressing valuation and capital adequacy raising it. Diagnostics confirm specification validity and the findings survive two alternative estimators.

Conclusion

The study concludes that the Nigerian market rewards not the existence of sustainability reporting but the quality of it. Where disclosure is quantified, comparable, forward-looking and independently attested, it reduces information asymmetry and is capitalized into higher market valuation; where it is narrative and unassured, it is not. This conclusion helps reconcile the contradictory findings that characterize the emerging-market literature, which has largely relied on quantity-based measures incapable of distinguishing substantive disclosure from symbolic disclosure.

The study further concludes that the three ESG pillars are not equally value-relevant in this market. Governance and social disclosure quality drive the composite effect, while environmental disclosure quality, though correctly signed, is not priced.

This asymmetry reflects the current maturity of Nigerian bank reporting rather than any inherent irrelevance of environmental information: social and governance disclosures have attained a degree of quantification and stakeholder salience that environmental disclosures have not. Theoretically, the results support Stakeholder and Signaling theories as the more complete explanatory frameworks for the disclosure-value channel in emerging-market banking, and qualify the predictions of Agency theory.

Recommendations

- i. The Securities and Exchange Commission and the Financial Reporting Council of Nigeria should accelerate the mandatory adoption of ISSB-aligned standards, particularly IFRS S2, ahead of the current timeline. The evidence that disclosure quality is priced, while environmental disclosure quality specifically is not, supplies an economic rationale for raising the floor on climate-related reporting.
- ii. The Central Bank of Nigeria should strengthen enforcement of the Sustainable Banking Principles by linking measured disclosure quality to regulatory incentives, and should publish an annual sustainability disclosure league table to create reputational incentives for improvement within the sector.
- iii. Bank boards should establish dedicated sustainability and ESG committees rather than delegating oversight to general risk or audit committees. The finding that governance disclosure quality is the strongest single value driver justifies dedicated board-level attention to disclosure oversight.
- iv. Bank management should commission independent external assurance of sustainability reports under ISAE 3000 or ISAE 3410. Verification and assurance carries a twenty per cent weight in the composite index and is the weakest dimension for most Nigerian banks, making it the highest-return available investment in disclosure quality.
- v. Institutional investors should incorporate disclosure-quality scores, rather than third-party ESG ratings alone, into valuation models and portfolio construction, since it is quality that this evidence shows to be priced.

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