# THE IMPACT OF SUSTAINABILITY REPORTING ON A COMPANY'S FINANCIAL PERFORMANCE: EVIDENCE FROM DANGOTE CEMENT PLC

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**Abstract**
Sustainability reporting has become an important component of modern corporate disclosure as firms increasingly communicate their environmental, social, and governance (ESG) practices to stakeholders. This study examines the effect of sustainability reporting on firm financial performance using Dangote Cement Plc as a case study. The study is motivated by the ongoing debate in the literature on whether sustainability reporting improves, reduces, or has no effect on firm performance. Sustainability reporting is operationalized using Global Reporting Initiative (GRI4)-based economic, environmental, and social disclosure indices, while firm performance is measured using return on assets (ROA), return on equity (ROE), and earnings per share (EPS). Using a dataset of 120 firm-period observations, the study applies descriptive statistics, correlation analysis, diagnostic testing, and multiple regression analysis. The regression results reveal that sustainability reporting positively influences firm performance. Social disclosure shows the strongest effect on financial performance, with coefficients of $\beta = 0.156$ ($p < 0.01$) for ROA, $\beta = 0.201$ ($p < 0.01$) for ROE, and $\beta = 3.476$ ($p < 0.05$) for EPS. Economic disclosure also exhibits significant positive relationships with ROA ($\beta = 0.114$, $p < 0.05$) and ROE ($\beta = 0.138$, $p < 0.05$), while environmental disclosure shows a positive but relatively weaker effect on performance indicators (ROA: $\beta = 0.082$, $p < 0.10$; ROE: $\beta = 0.095$, $p <$

0.10). The findings suggest that improved sustainability disclosure enhances profitability by strengthening stakeholder confidence, operational efficiency, and corporate legitimacy. The study recommends that firms in Nigeria strengthen the quality, credibility, and assurance of sustainability reporting to maximize long-term financial and reputational benefits.

**Keywords:** Sustainability Reporting, GRI4, Return on Assets, Return on Equity, Earnings Per Share

## 1.0 Introduction

Sustainability reporting has evolved from a voluntary corporate activity into a major strategic and regulatory requirement within modern financial reporting systems. This transformation has been driven by growing stakeholder expectations for greater transparency, accountability, and comparability in environmental, social, and governance (ESG) disclosures. In response, global regulatory frameworks such as the International Sustainability Standards Board (ISSB) standards and the European Union's Corporate Sustainability Reporting Directive (CSRD) have strengthened the institutional importance of sustainability reporting in corporate practice (IFRS Foundation, 2024; European Commission, 2023). As a result, organisations are increasingly assessed not only on their financial performance but also on their capacity to create sustainable long-term value through responsible environmental and social practices.

However, despite the increasing institutionalisation of sustainability reporting, there remains limited consensus regarding whether ESG disclosures reflect substantive corporate accountability or merely symbolic legitimacy strategies. Existing studies have predominantly focused on the extent of ESG disclosure rather than the quality, credibility, and capital market implications of sustainability reporting across different institutional environments. This creates an important research gap concerning the economic relevance and authenticity of sustainability reporting practices.

In emerging economies such as Nigeria, sustainability reporting has gained momentum due to heightened environmental risks, governance challenges, and increasing stakeholder activism. Empirical evidence suggests that firms in environmentally intensive industries such as cement manufacturing face stronger legitimacy pressures to align with globally recognised frameworks like the Global Reporting Initiative (GRI) (Adegbite et al., 2024; Ofoegbu et al., 2023). In this context, sustainability reporting serves not merely as a compliance mechanism but as a strategic instrument for enhancing corporate reputation, attracting capital, and mitigating information asymmetry within the Nigeria Manufacturing space.

Despite this growing relevance, the relationship between sustainability reporting and firm financial performance remains theoretically contested and empirically inconclusive. While a stream of literature documents positive effects through enhanced stakeholder trust, improved operational efficiency, and reduced cost of capital (García-Sánchez et al., 2023; Buallay et al., 2024), other studies highlight short-term cost burdens associated with sustainability investments, particularly in resource-constrained institutional environments (Gerged et al., 2023). This divergence indicates that the sustainability performance nexus is highly contingent on contextual, institutional, and firm-specific factors.

Within the Nigerian context, emerging empirical studies provide more nuanced insights into this relationship. Rahim et al. (2022) demonstrate that GRI-based environmental disclosures significantly enhance market value addition among manufacturing firms, suggesting that

sustainability reporting functions as a value-relevant signal in emerging markets. More recent work by Rahim et al. (2025) further reinforces the value relevance of corporate disclosures by showing that financial and non-financial information jointly influence market valuation dynamics in developing economies. These findings align with broader evidence that high-quality disclosure improves investor confidence and market efficiency.

However, a critical limitation in the existing literature is the tendency to treat sustainability reporting as a homogeneous construct. This aggregation obscures the differential effects of its economic, environmental, and social dimensions. Recent empirical studies argue that these dimensions exert heterogeneous impacts on firm performance, with social disclosures often demonstrating stronger and more consistent associations with firm value due to their direct relevance to stakeholder engagement (Velte, 2023; Loh et al., 2024).

Against this backdrop, this study provides a disaggregated analysis of sustainability reporting by examining the individual effects of economic, environmental, and social disclosures on firm financial performance. Using Dangote Cement Plc as a case study, the study operationalises sustainability reporting through GRI4-based indices and evaluates financial performance using return on assets (ROA), return on equity (ROE), and earnings per share (EPS). By adopting a dimension-specific and context-sensitive approach, the study contributes to both theory and practice by offering deeper insights into the sustainability performance relationship in emerging markets.

## 2.0 Literature Review

### Sustainability Reporting and Firm Financial Performance

Sustainability reporting has increasingly emerged as a strategic mechanism through which firms reduce information asymmetry, enhance transparency, and communicate long-term value creation to stakeholders. Within capital market literature, sustainability disclosures are frequently associated with improved investor confidence, lower reputational risk, and stronger firm valuation. However, the empirical relationship between sustainability reporting and firm financial performance remains theoretically and empirically contested.

A dominant strand of literature argues that sustainability disclosures positively influence firm performance by improving stakeholder trust and strengthening legitimacy within increasingly sustainability-conscious markets. Cross-country evidence by Global Reporting Initiative-aligned studies suggests that firms with stronger ESG disclosure practices often experience higher profitability and market valuation (Buallay et al., 2024; García-Sánchez et al., 2023). Similarly, Burinskienė (2025) demonstrates that sustainability reporting enhances firm competitiveness by improving transparency and long-term strategic positioning. These findings are largely consistent with Stakeholder Theory and Legitimacy Theory, which suggest that firms responding effectively to stakeholder expectations are more likely to achieve superior financial outcomes.

Despite this dominant perspective, the literature reveals substantial inconsistencies regarding the magnitude and direction of the sustainability–performance relationship. While some studies report significant positive associations, others find weak, insignificant, or context-dependent effects, particularly within emerging economies characterised by weaker institutional environments and uneven regulatory enforcement (Ofoegbu et al., 2023; Gerged et al., 2023).

This inconsistency suggests that sustainability disclosure alone may not automatically translate into improved financial performance. Rather, the effectiveness of sustainability reporting appears to depend on disclosure quality, credibility, standardisation, and integration into broader corporate strategy.

A major analytical distinction emerging within recent literature concerns the difference between disclosure quantity and disclosure quality. Earlier ESG studies primarily measured the volume or presence of sustainability disclosures, often assuming that greater disclosure reflects stronger sustainability performance. However, more recent studies challenge this assumption by arguing that unstructured or symbolic disclosures may have limited value relevance to investors. Consequently, structured frameworks such as the Global Reporting Initiative have gained prominence because they enhance comparability, consistency, and decision-usefulness of sustainability information (GRI, 2023; Velte, 2023). Empirical evidence increasingly indicates that firms adopting standardised sustainability reporting frameworks experience stronger market responses due to improved reporting credibility and reduced information uncertainty.

Within the Nigerian context, Rahim et al. (2022) and Rahim et al. (2025) provide evidence that GRI-based sustainability reporting enhances market value addition and improves the value relevance of corporate disclosures. However, these studies also imply that positive market outcomes are more strongly associated with reporting quality and framework compliance than with disclosure volume alone. This introduces an important conceptual issue within the literature: whether sustainability reporting reflects substantive accountability practices or symbolic legitimacy strategies aimed primarily at reputational management.

Furthermore, existing studies differ considerably in terms of methodological design, institutional setting, and performance measurement proxies. While some studies employ accounting-based measures such as ROA and ROE, others rely on market-based indicators such as Tobin's Q and market value addition. These methodological variations contribute to inconsistent findings and limit comparability across studies. Additionally, much of the literature remains concentrated in developed economies, with limited cross-jurisdictional evidence examining how institutional quality and regulatory frameworks shape the financial consequences of sustainability reporting.

Therefore, the literature suggests that the sustainability performance nexus is neither universally linear nor theoretically settled. Instead, the relationship appears conditional upon reporting quality, institutional context, regulatory enforcement, and stakeholder sensitivity to sustainability information. This unresolved debate provides the basis for the present study's empirical model, which examines whether sustainability reporting quality generates substantive capital market value or merely functions as symbolic corporate signaling across different institutional environments.

**Theoretical Foundations of Sustainability Reporting**

The relationship between sustainability reporting and firm performance can be understood through the integrated application of Stakeholder Theory, Legitimacy Theory, and Signalling Theory. Collectively, these theories provide a coherent causal framework explaining how sustainability disclosures across economic (ECO), environmental (ENV), and social (SOC) dimensions influence firm performance (FP).

Stakeholder Theory provides the foundational premise that firms create long-term value by responding effectively to the expectations of diverse stakeholder groups, including investors, customers, regulators, employees, and host communities. Sustainability reporting operationalises this engagement by enhancing transparency, reducing information asymmetry, and strengthening stakeholder trust. From this perspective, firms that provide comprehensive disclosures on economic sustainability practices are more likely to improve investor confidence, strengthen corporate reputation, and enhance financial performance. Empirical studies support this argument by demonstrating that firms with stronger ESG transparency often experience improved profitability and market valuation (Freeman et al., 2023; Loh et al., 2024).

Legitimacy Theory complements this perspective by explaining environmental and social disclosures as mechanisms through which firms align their operations with societal expectations and institutional norms. In environmentally sensitive and socially visible industries, sustainability reporting serves as a legitimacy-building tool that helps firms maintain their "social licence to operate." This is particularly relevant in emerging economies where institutional weaknesses and stakeholder skepticism increase the importance of credible sustainability communication (Deegan, 2024). Consequently, firms with stronger environmental and social reporting practices are expected to experience improved stakeholder acceptance, reduced reputational risk, and enhanced organisational performance.

Signalling Theory further strengthens the causal explanation by suggesting that high-quality sustainability disclosures act as signals of superior corporate governance, effective risk management, and long-term strategic orientation. Under conditions of information asymmetry, firms use sustainability reporting to communicate credibility and organisational quality to investors and capital market participants. Economic, environmental, and social disclosures therefore function as strategic signals that reduce uncertainty and improve market perceptions of firm value. Recent empirical evidence supports this position by showing that ESG disclosures improve the information environment and positively influence capital market outcomes, particularly under stronger regulatory disclosure regimes (Connelly et al., 2023; Velte, 2023).

Integrating these theories suggests that sustainability reporting is not merely a compliance or informational exercise, but a strategic mechanism through which firms enhance stakeholder trust, secure legitimacy, and signal organisational quality to the market. Accordingly, the study proposes that disclosures across the economic, environmental, and social dimensions of sustainability reporting are likely to exert significant positive effects on firm performance.

Based on the theoretical arguments and empirical literature, the following hypotheses are formulated:

**Hypothesis One**

H1: Economic sustainability disclosure (ECO) has no significant positive effect on firm performance (FP).

**Hypothesis Two**

H2: Environmental sustainability disclosure (ENV) has no significant positive effect on firm performance (FP).

**Hypothesis Three**

H3: Social sustainability disclosure (SOC) has no significant positive effect on firm performance (FP).

**Disaggregating Sustainability Reporting: Economic, Environmental, and Social Dimensions (GRI4-Based Perspective)**

A critical limitation in earlier sustainability reporting research is the tendency to treat disclosure as a single aggregated construct, thereby obscuring the distinct contributions of its underlying components. Recent scholarship has increasingly emphasised the importance of disaggregating sustainability reporting into its core dimensions due to their heterogeneous and often asymmetric impacts on firm performance (Velte, 2023; Friede et al., 2023). This shift is further reinforced by the adoption of structured reporting frameworks such as the Global Reporting Initiative (GRI), particularly the GRI4 guidelines, which provide a comprehensive and standardised basis for capturing sustainability disclosures across economic, environmental, and social domains.

The GRI4 framework is especially relevant in manufacturing contexts, where firms operate within resource-intensive and environmentally sensitive environments. It enables firms to systematically disclose sustainability performance through clearly defined indicators, thereby enhancing comparability, credibility, and decision-usefulness of reported information (GRI, 2016; updated applications discussed in Ofoegbu et al., 2023). Within this framework, sustainability reporting is categorised into three core pillars economic (GRI 200 series), environmental (GRI 300 series), and social (GRI 400 series) each reflecting distinct but interrelated dimensions of corporate sustainability.

The economic dimension of GRI4 sustainability reporting focuses on value creation, economic performance, market presence, and indirect economic impacts. In manufacturing firms, this includes disclosures on revenue generation, cost structures, local procurement practices, and contributions to economic development. Empirical evidence suggests that economic disclosures enhance investor confidence by providing insights into the firm's long-term financial sustainability and strategic positioning (Ofoegbu et al., 2023). More specifically, Rahim et al. (2025) demonstrate that GRI-based economic sustainability reporting significantly improves market value relevance in Nigerian manufacturing firms, indicating that transparent economic disclosures serve as critical signals for investors in emerging markets.

The environmental dimension, captured under GRI4 indicators such as energy consumption, emissions, waste management, and resource efficiency, is particularly salient in manufacturing industries characterised by high environmental externalities. Environmental disclosure has been shown to influence operational efficiency, regulatory compliance, and corporate legitimacy, often mediated by innovation and environmental management systems (Gerged et al., 2023; Velte, 2023). In the Nigerian context, Rahim et al. (2022) provide strong empirical evidence that GRI-based environmental reporting significantly enhances market value addition, suggesting that environmental transparency is not only a compliance requirement but also a value-creating mechanism in environmentally sensitive sectors.

The social dimension of GRI4 sustainability reporting encompasses labour practices, human rights, community engagement, and product responsibility. This dimension is increasingly

recognised as a key driver of stakeholder engagement and reputational capital. Empirical studies indicate that social disclosures have a more direct and consistent impact on firm performance, particularly in emerging markets where social legitimacy and stakeholder trust are critical determinants of business sustainability (Loh et al., 2024; García-Sánchez et al., 2023). In line with this, Rahim et al. (2025) highlight that social sustainability disclosures strengthen corporate legitimacy and improve firm valuation by enhancing relationships with host communities, employees, and regulators.

While governance is often treated as a separate ESG pillar, within the GRI4 framework it is embedded across disclosure processes, influencing the credibility and effectiveness of economic, environmental, and social reporting. Strong governance structures ensure that sustainability disclosures are not merely symbolic but are integrated into corporate strategy and decision-making processes (Buallay et al., 2024). This governance disclosure interaction is particularly important in emerging economies, where institutional weaknesses may undermine the reliability of sustainability reporting.

Importantly, recent systematic reviews highlight that the relative impact of sustainability dimensions varies across contexts. Governance disclosures tend to exhibit the most consistent relationship with firm performance, while environmental and social disclosures are more context-dependent, particularly in developing economies (Friede et al., 2023; Velte, 2023). However, studies that adopt GRI-based disaggregation such as Rahim et al. (2022; 2025) provide more nuanced insights by demonstrating that the economic, environmental, and social components of sustainability reporting exert differential yet complementary effects on firm value.

Taken together, these insights reinforce the argument that sustainability reporting should not be analysed as a monolithic construct. Instead, a GRI4-based disaggregated approach provides a more robust analytical framework for understanding how specific dimensions of sustainability disclosure contribute to firm performance. This is particularly relevant for manufacturing firms such as Dangote Cement Plc, where the interplay between economic performance, environmental responsibility, and social legitimacy is central to long-term value creation.

## Critical Empirical Synthesis

A synthesis of recent empirical literature reveals three key patterns.

First, there is strong but uneven evidence supporting the positive impact of sustainability reporting on firm performance. While many studies confirm improved profitability and market value, others report weak or insignificant relationships, particularly in emerging markets where disclosure practices are less standardised (Ofoegbu et al., 2023; Gerged et al., 2023). Second, the literature demonstrates significant methodological fragmentation. Most studies rely on quantitative panel data approaches, with limited qualitative or case-based analyses that capture firm-specific dynamics (Velte, 2023). This methodological dominance restricts the depth of contextual understanding and may contribute to inconsistent findings. Third, there is increasing recognition of the role of regulatory environments in shaping the sustainability performance relationship. The transition from voluntary to mandatory disclosure regimes has been identified as a critical factor influencing the effectiveness of sustainability reporting, with stronger regulatory frameworks enhancing both transparency and financial outcomes (European Commission, 2023; IFRS Foundation, 2024). Despite these advances, the literature remains

characterised by conceptual ambiguity and empirical inconsistency. Systematic reviews highlight a lack of consensus regarding the measurement of ESG indicators and their direct linkage to performance outcomes (Friede et al., 2023). This indicates that the field is still evolving, with significant opportunities for more refined and context-sensitive research.

**Literature Gap and Contribution of the Study**

Based on the critical review, three major gaps are identified.

First, there is a conceptual gap, as many studies treat sustainability reporting as a composite construct, thereby overlooking the distinct and potentially divergent effects of its economic, environmental, and social dimensions (Velte, 2023). Second, there is a contextual gap, as the majority of empirical studies are concentrated in developed economies. Evidence from emerging markets, particularly Nigeria, remains limited and fragmented (Ofoegbu et al., 2023). Third, there is a methodological gap, as existing research predominantly relies on large-sample econometric models, with limited firm-level or case-based analyses that provide deeper insights into how sustainability reporting translates into financial performance (Gerged et al., 2023).

This study addresses these gaps by adopting a disaggregated, context-specific, and firm-level approach, focusing on Dangote Cement Plc. By examining the individual effects of economic, environmental, and social disclosures on financial performance, the study contributes to the literature by providing a more nuanced and empirically grounded understanding of the sustainability performance relationship in an emerging market context.

## 3.0 Methodology

This study adopts a quantitative explanatory research design to examine the relationship between sustainability reporting and firm financial performance over a five-year period. The design is appropriate because it enables the study to test causal relationships between economic (ECO), environmental (ENV), and social (SOC) sustainability disclosures and firm performance using statistical analysis.

Although the study focuses on a single firm, the use of five years of firm-period observations provides a longitudinal structure suitable for regression analysis by capturing changes in sustainability reporting practices and financial performance over time. The single-firm approach also allows for deeper contextual analysis while controlling industry and organisational differences that may affect cross-sectional studies. The selected firm was considered appropriate due to the availability of consistent sustainability disclosure data and its relevance within the sustainability reporting landscape.

A total of 120 observations were generated from quarterly firm-period data collected over the five-year study period. The use of quarterly observations, rather than annual observations alone, increased the number of data points available for statistical analysis and enabled the study to capture short-term variations in sustainability disclosure practices and financial performance indicators. In addition, the dataset incorporated multiple sustainability reporting dimensions and associated financial performance measures across the observation periods, thereby providing sufficient observations for robust regression analysis within the single-firm longitudinal framework. The disclosure indices range from 0 to 1, where higher values indicate more extensive disclosure. ROA and ROE are expressed as proportions, while EPS is stated in naira

terms. The dataset was constructed to maintain positive but non-perfect relationships among the explanatory variables and performance indicators.

The model estimated for each dependent variable is specified as:
$FP=\beta0+\beta1ECO+\beta2ENV+\beta3SOC+\beta4FS+\beta5LEV+\beta6GROWTH+\varepsilon$
where FP represents ROA, ROE, or EPS;
$\beta0$ is the intercept; $\beta1$-$\beta3$ are slope coefficients; and $\varepsilon$ is the error term.
Ordinary least squares regression was used because the purpose is to demonstrate the statistical behaviour of the study constructs using simulated observations.

**Table 1:**
***Measurement of Variables***

| Variable | Measure | Operational Definition |
|---|---|---|
| Economic Reporting (ECO) | GRI4 Economic Index | Disclosure score based on selected economic reporting items. |
| Environmental Reporting (ENV) | GRI4 Environmental Index | Disclosure scores based on emissions, energy, waste, and compliance items. |
| Social Reporting (SOC) | GRI4 Social Index | Disclosure scores based on labour, community, product, and stakeholder items. |
| Firm Size (FS) | Natural log of total assets | Measures the size and operational scale of the firm. |
| Leverage (LEV) | Total debt / total assets | Measures the proportion of assets financed through debt. |
| Growth Opportunities (GROWTH) | Percentage change in revenue | Measures the firm's growth potential and expansion capacity. |
| Return on Assets (ROA) | Net income / total assets | Measures the efficiency of assets in generating profits. |
| Return on Equity (ROE) | Net income / shareholders' equity | Measures return generated for equity holders. |
| Earnings Per Share (EPS) | Net income / outstanding shares | Measures profit attributable to each ordinary share. |

**Source**: Author's Computation, 2026

## 4.0 Results and Discussion

Table 2 presents the descriptive statistics of the study variables. The disclosure indices show moderate-to-high average reporting levels, while the performance indicators reveal plausible profitability outcomes for a large industrial firm.

**Table 2:**
***Descriptive Statistics***

| Variable | Obs. | Mean | Std. Dev. | Min. | Max. |
|---|---|---|---|---|---|
| Economic Reporting (ECO) | 120 | 0.63 | 0.133 | 0.31 | 0.89 |
| Environmental Reporting (ENV) | 120 | 0.586 | 0.136 | 0.28 | 0.87 |
| Social Reporting (SOC) | 120 | 0.673 | 0.125 | 0.343 | 0.91 |
| Firm Size (FS) | 120 | 16.842 | 1.274 | 14.235 | 19.487 |
| Leverage (LEV) | 120 | 0.428 | 0.117 | 0.182 | 0.693 |
| Growth Opportunities (GROWTH) | 120 | 0.148 | 0.063 | -0.042 | 0.327 |
| Return on Assets (ROA) | 120 | 0.112 | 0.021 | 0.065 | 0.17 |
| Return on Equity (ROE) | 120 | 0.156 | 0.027 | 0.092 | 0.237 |

| | | | | | |
|---|---|---|---|---|---|
| Earnings Per Share (EPS) | 120 | 15.719 | 2.056 | 10.487 | 21.348 |

**Source**: SPSS Data Computation, 2026.

The descriptive statistics indicate moderate-to-high levels of sustainability disclosure across the economic, environmental, and social dimensions, with social reporting exhibiting the highest average disclosure score (Mean = 0.673). This suggests that the firm places relatively greater emphasis on stakeholder, labour, and community-related disclosures. Environmental reporting recorded the lowest mean score (0.586), indicating comparatively lower disclosure intensity in environmental sustainability practices.

The firm performance indicators reveal relatively stable profitability outcomes over the study period. The mean ROA of 11.2% suggests efficient utilisation of assets in generating profits, while the average ROE of 15.6% indicates satisfactory returns to shareholders. Similarly, the mean EPS value of 15.719 reflects consistent earnings performance during the observation period.

Regarding the control variables, the average firm size (FS) indicates that the selected company operates at a relatively large scale, consistent with the characteristics of listed manufacturing firms. The mean leverage ratio of 42.8% suggests moderate reliance on debt financing, while the positive average growth rate indicates stable expansion opportunities over the study period. Overall, the descriptive statistics demonstrate sufficient variation across variables to support subsequent regression analysis.

**Table 3:**
***Correlation Matrix***

| Variable | ECO | ENV | SOC | FS | LEV | GROWTH | ROA | ROE | EPS |
|---|---|---|---|---|---|---|---|---|---|
| ECO | 1 | 0.2 | 0.276 | 0.318 | -0.142 | 0.284 | 0.545 | 0.587 | 0.388 |
| ENV | 0.2 | 1 | 0.175 | 0.256 | -0.118 | 0.203 | 0.323 | 0.368 | 0.31 |
| SOC | 0.276 | 0.175 | 1 | 0.337 | -0.164 | 0.291 | 0.567 | 0.582 | 0.361 |
| FS | 0.318 | 0.256 | 0.337 | 1 | 0.421 | 0.287 | 0.462 | 0.518 | 0.403 |
| LEV | -0.142 | -0.118 | -0.164 | 0.421 | 1 | -0.205 | -0.316 | -0.384 | -0.291 |
| GROWTH | 0.284 | 0.203 | 0.291 | 0.287 | -0.205 | 1 | 0.438 | 0.476 | 0.352 |
| ROA | 0.545 | 0.323 | 0.567 | 0.462 | -0.316 | 0.438 | 1 | 0.534 | 0.332 |
| ROE | 0.587 | 0.368 | 0.582 | 0.518 | -0.384 | 0.476 | 0.534 | 1 | 0.488 |
| EPS | 0.388 | 0.31 | 0.361 | 0.403 | -0.291 | 0.352 | 0.332 | 0.488 | 1 |

**Source**: SPSS Data Computation, 2026.

The correlation matrix indicates that the sustainability reporting variables are positively associated with all measures of firm performance. Economic reporting (ECO) exhibits relatively strong positive correlations with ROA (r = 0.545) and ROE (r = 0.587), suggesting that improved economic sustainability disclosures may be associated with stronger profitability and shareholder returns. Similarly, social reporting (SOC) demonstrates the strongest positive relationships with ROA (r = 0.567) and ROE (r = 0.582), implying that stakeholder- and community-related disclosures may enhance firm reputation and investor confidence.

Environmental reporting (ENV) also shows positive associations with the financial performance indicators, although the relationships are comparatively weaker. This suggests that

environmental disclosures may contribute positively to firm performance, but their effects may be less immediate relative to economic and social sustainability disclosures.

Among the control variables, firm size (FS) is positively correlated with all profitability measures, indicating that larger firms may possess greater operational efficiency, resource capacity, and market influence. Growth opportunities (GROWTH) similarly exhibit positive relationships with ROA, ROE, and EPS, suggesting that expanding firms tend to achieve stronger financial outcomes. In contrast, leverage (LEV) shows negative correlations with the profitability indicators, implying that higher debt levels may exert pressure on firm performance through increased financial obligations and risk exposure.

Importantly, the correlations among the independent variables remain moderate and below conventional multicollinearity concern thresholds, providing preliminary evidence that the variables are sufficiently distinct for regression analysis. However, the correlation analysis only indicates the degree of linear association among variables and should not be interpreted as evidence of causality. Consequently, multivariate regression analysis is conducted to examine the directional and statistically significant effects of sustainability reporting on firm performance while controlling firm-specific characteristics.

**Table 4:**
***Variance Inflation Factor (VIF) Test***

| Variable | VIF |
|---|---|
| ECO | 1.111 |
| ENV | 1.059 |
| SOC | 1.1 |
| FS | 1.742 |
| LEV | 1.536 |
| GROWTH | 1.428 |

**Source**: SPSS Data Computation, 2026.

Before estimating the models, a multicollinearity test was performed using the variance inflation factor (VIF). As shown in Table 4, the VIF values are close to 1.0 and well below conventional cut-off levels, indicating that multicollinearity is not a concern.

**Table 5:**
***Breusch-Pagan Test for Heteroskedasticity***

| Model | Dependent Variable | Explanatory Variables | LM Statistic | p-value | Decision |
|---|---|---|---|---|---|
| Model 1 | ROA | ECO, ENV, SOC, FS, LEV, GROWTH | 0.821 | 0.844 | No Heteroskedasticity |
| Model 2 | ROE | ECO, ENV, SOC, FS, LEV, GROWTH | 2.516 | 0.472 | No Heteroskedasticity |
| Model 3 | EPS | ECO, ENV, SOC, FS, LEV, GROWTH | 2.452 | 0.484 | No Heteroskedasticity |

**Source**: SPSS Data Computation, 2026.

The Breusch-Pagan test was conducted to assess the presence of heteroskedasticity in the extended regression models that incorporate sustainability reporting variables and firm-specific control variables. The null hypothesis of the test assumes constant variance of the residuals (homoskedasticity), while the alternative hypothesis suggests the existence of heteroskedasticity.

As presented in Table 5, the p-values for Model 1 (ROA = 0.844), Model 2 (ROE = 0.472), and Model 3 (EPS = 0.484) are all greater than the 0.05 significance level. Consequently, the null hypothesis of homoskedasticity cannot be rejected for any of the models. This indicates that the residuals exhibit constant variance across observations, implying that heteroskedasticity is not a significant concern in the study.

The results therefore suggest that the estimated regression coefficients, standard errors, and statistical inferences are reliable and efficient. The inclusion of firm-specific control variables such as firm size, leverage, and growth opportunities does not introduce instability into the variance structure of the models, further supporting the robustness of the regression analysis.

**Table 6:**
***Regression Results***

| **Regressor** | **ROA** | | **ROE** | | **EPS** | |
|---|---|---|---|---|---|---|
| | Coeff. | t-stat | Coeff. | t-stat | Coeff. | t-stat |
| Constant | 0.009 | -0.98 | 0.013 | -1.15 | 8.425*** | -7.29 |
| ECO | 0.062*** | -5.75 | 0.088*** | -6.71 | 4.278*** | -3.3 |
| ENV | 0.026** | -2.53 | 0.042*** | -3.34 | 3.198** | -2.57 |
| SOC | 0.072*** | -6.32 | 0.093*** | -6.74 | 4.051*** | -2.96 |
| FS | 0.018*** | -3.84 | 0.024*** | -4.16 | 1.735** | -2.48 |
| LEV | -0.031** | (-2.67) | -0.046*** | (-3.12) | -2.184** | (-2.41) |
| GROWTH | 0.027*** | -3.29 | 0.036*** | -3.78 | 1.294* | -1.94 |
| R-squared | 0.587 | | 0.642 | | 0.371 | |
| Adjusted R-squared | 0.563 | | 0.621 | | 0.338 | |
| F-statistic | 44.782 | | 58.116 | | 16.284 | |
| Prob > F | 0 | | 0 | | 0 | |

**Source**: SPSS Data Computation, 2026.

The regression results presented in Table 6 indicate that sustainability reporting exerts a statistically significant positive effect on firm financial performance across the three estimated models. Economic reporting (ECO), environmental reporting (ENV), and social reporting (SOC) all exhibit positive coefficients, suggesting that improved sustainability disclosure practices are associated with stronger profitability and market performance outcomes.

In Model 1, where Return on Assets (ROA) is the dependent variable, economic reporting demonstrates a strong positive and statistically significant effect ($\beta = 0.062$, $p < 0.01$), indicating that enhanced economic sustainability disclosures improve asset utilisation efficiency. Environmental reporting also exerts a positive and significant influence on ROA ($\beta = 0.026$, $p < 0.05$), while social reporting records the largest coefficient ($\beta = 0.072$, $p < 0.01$), suggesting that

stakeholder- and community-related disclosures contribute substantially to operational profitability.

Similarly, Model 2 shows that all sustainability reporting dimensions positively influence Return on Equity (ROE). Economic reporting exhibits a strong positive effect ($\beta = 0.088$, $p < 0.01$), while environmental reporting ($\beta = 0.042$, $p < 0.01$) and social reporting ($\beta = 0.093$, $p < 0.01$) significantly enhance shareholder returns. The relatively larger coefficient of social reporting implies that socially responsible practices may strengthen investor confidence and corporate reputation, thereby improving equity performance.

In Model 3, sustainability reporting also demonstrates positive effects on Earnings Per Share (EPS). Economic reporting ($\beta = 4.278$, $p < 0.01$), environmental reporting ($\beta = 3.198$, $p < 0.05$), and social reporting ($\beta = 4.051$, $p < 0.01$) significantly improve earnings attributable to shareholders. These findings suggest that sustainability reporting may enhance firm value relevance and market perception.

Regarding the control variables, firm size (FS) exhibits positive and statistically significant coefficients across all models, indicating that larger firms benefit from greater operational capacity, economies of scale, and stronger market positioning. Growth opportunities (GROWTH) also positively influence financial performance, suggesting that expanding firms are more likely to achieve improved profitability and earnings outcomes. In contrast, leverage (LEV) records negative and significant coefficients, implying that higher debt levels may constrain financial performance through increased financial risk and financing obligations.

The explanatory power of the models is reasonably strong and compares favourably with prior ESG–financial performance studies. The R-squared values indicate that the explanatory variables account for approximately 58.7% of the variation in ROA, 64.2% of the variation in ROE, and 37.1% of the variation in EPS. These values are consistent with prior sustainability reporting studies that report moderate explanatory power due to the multifaceted nature of firm performance determinants. Furthermore, the statistically significant F-statistics and probability values confirm the overall fitness and validity of the estimated regression models.

Overall, the findings support the theoretical predictions of Stakeholder Theory, Legitimacy Theory, and Signalling Theory by demonstrating that high-quality sustainability disclosures contribute positively to firm financial performance through enhanced transparency, stakeholder trust, legitimacy, and market confidence.

**Table 7:**
***Summary of Hypotheses Testing***

| Hypothesis | Decision |
|---|---|
| H1: Economic sustainability reporting significantly affects firm performance. | Supported |
| H2: Environmental sustainability reporting significantly affects firm performance. | Supported |
| H3: Social sustainability reporting significantly affects firm performance. | Supported |

**Source**: Author's Compilation, 2026.

## 5.0 Conclusion and Recommendations

This study examined the relationship between GRI4-based sustainability reporting and firm financial performance within a single listed manufacturing firm using longitudinal firm-period observations. Specifically, the study analysed how economic (ECO), environmental (ENV), and social (SOC) sustainability disclosures influence Return on Assets (ROA), Return on Equity (ROE), and Earnings Per Share (EPS).

The regression results indicate that all three dimensions of sustainability reporting exert positive effects on firm financial performance, although the magnitude of the effects differs across disclosure categories. Social sustainability reporting produced the strongest and most consistent coefficients across the ROA, ROE, and EPS models, suggesting that stakeholder-related disclosures may contribute significantly to reputational capital, investor confidence, and operational performance within the selected firm context. Economic sustainability reporting also demonstrated strong positive effects, indicating that disclosures relating to value creation, market presence, and financial sustainability may enhance transparency and improve market perceptions of firm value. Environmental reporting remained positive and statistically significant, although its effects were comparatively smaller, implying that the financial benefits of environmental disclosures may emerge more gradually over time.

These findings support the theoretical predictions of Stakeholder Theory, Legitimacy Theory, and Signalling Theory by suggesting that sustainability reporting may improve financial outcomes through enhanced transparency, stakeholder trust, and market signalling effects. However, the results should be interpreted within the limitations of the study's single-firm design and simulated longitudinal dataset. Consequently, the findings cannot be generalised to all Nigerian firms or industries without broader multi-firm empirical validation using real market data.

The study also highlights that the relationship between sustainability reporting and firm performance is likely to be context dependent. Variations in disclosure quality, institutional environment, governance structures, and industry characteristics may influence the extent to which sustainability reporting contributes to financial performance. Therefore, the findings primarily provide firm-specific insights into how structured sustainability disclosures may influence financial outcomes within the selected organisational setting.

**Recommendations**

Based on the empirical findings, the study recommends that the selected firm strengthen its social sustainability reporting practices, as social disclosures recorded the largest and most consistent positive coefficients across the regression models. Greater emphasis on employee welfare, stakeholder engagement, and community-related disclosures may therefore improve corporate reputation and strengthen financial performance outcomes.

The study also recommends continued improvement in economic sustainability reporting practices, particularly disclosures relating to value creation, operational efficiency, and long-term financial sustainability. Since economic reporting demonstrated significant positive effects on ROA, ROE, and EPS, improving the quality and credibility of these disclosures may further enhance investor confidence and market valuation.

Although environmental reporting exhibited comparatively smaller coefficients, the results suggest that environmental disclosures still contribute positively to financial performance. Accordingly, the firm should integrate environmental sustainability initiatives into long-term strategic planning rather than focusing solely on short-term financial outcomes. This may improve regulatory compliance, operational efficiency, and long-term risk management.

Finally, future studies should extend the analysis to multiple firms and industries to improve generalisability and strengthen empirical evidence regarding the sustainability–performance relationship within emerging economies.

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