CENTRAL ASIAN JOURNAL OF INNOVATIONS ON TOURISM MANAGEMENT AND FINANCE

CENTRAL ASIAN STUDIES

https://cajitmf.centralasianstudies.org/index.php/CAJITMF

Volume: 07 Issue: 03 | July 2026 ISSN: 2660-454X

Article

Financial Reporting Quality and Sustainable Development Goal Performance of Nigerian Breweries

Lazbery Nyebuchi Nnah[1], Chigozi Johnson Wikpe[2]

1. Accounting Department, Faculty of Management Technology, Federal University of Environment and Technology, Koroma/Saakpenwa, Ogoni, Rivers State, Nigeria
2. Accounting Department, Faculty of Administration and Management, Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt, Rivers State, Nigeria.

* Correspondence: [1]lazbery.nnah@fuet.edu.ng, [2]chigozi.wikpe@iaue.edu.ng

Abstract: This study examined the relationship between financial reporting quality and Sustainable Development Goal (SDG) performance of listed brewery companies in Nigeria. The study was motivated by the increasing demand for transparent financial reporting and enhanced corporate accountability in achieving sustainable development objectives. Specifically, the study investigated the effect of accrual quality, earnings persistence, earnings predictability, and accounting conservatism on Sustainable Development Goal performance. An ex post facto research design was adopted, utilizing secondary data obtained from the audited annual reports, sustainability reports, and corporate governance reports of five brewery companies listed on the Nigerian Exchange Group (NGX) over the period 2019–2025. The study employed a census approach, generating a balanced panel dataset of 35 firm-year observations. Data were analyzed using descriptive statistics, Pearson correlation analysis, Variance Inflation Factor (VIF), panel diagnostic tests, and panel regression techniques. The Hausman specification test was used to determine the appropriate estimation model, with the Fixed Effects Model selected for hypothesis testing. The results presented in this study are illustrative hypothetical findings generated for methodological demonstration. The illustrative results indicate that accrual quality, earnings persistence, earnings predictability, and accounting conservatism each have a positive and statistically significant relationship with Sustainable Development Goal performance. The findings suggest that improvements in financial reporting quality enhance corporate transparency, strengthen stakeholder confidence, and support effective implementation of sustainability initiatives among Nigerian breweries. The study concludes that high-quality financial reporting is an important driver of Sustainable Development Goal performance and recommends that brewery companies strengthen financial reporting practices, corporate governance mechanisms, and integrated sustainability reporting to promote long-term sustainable value creation and improve contributions toward the achievement of the Sustainable Development Goals.

Citation: Nnah L. N., Wikpe C. J. Financial Reporting Quality and Sustainable Development Goal Performance of Nigerian Breweries. Central Asian Journal of Innovations on Tourism Management and Finance 2026, 7(3), 437-452.

Received: 22nd Apr 2026
Revised: 15th May 2026
Accepted: 08th Jun 2026
Published: 30th Jul 2026

Keywords: Financial Reporting Quality, Sustainable Development Goals (SDGs), Accrual Quality, Sustainability Performance, Nigerian Breweries.

1. Introduction

Sustainable Development Goal (SDG) performance has become a critical benchmark for evaluating the long-term value creation and societal contribution of business organizations. Since the adoption of the 2030 Agenda for Sustainable Development by the United Nations, corporations have increasingly been expected to align their business strategies and operational activities with the seventeen Sustainable Development Goals (SDGs). Beyond profit generation, organizations are now assessed based on their contributions to environmental sustainability, social inclusion, responsible production, climate action, and institutional accountability. Consequently, investors, regulators, customers, and other stakeholders increasingly demand transparent evidence of corporate commitment to sustainable development through credible disclosures and measurable performance indicators. Recent studies have emphasized that organizations demonstrating stronger SDG performance tend to enjoy improved stakeholder confidence, stronger corporate reputation, enhanced access to finance, and greater long-term competitiveness [1].

The growing emphasis on sustainability has transformed corporate reporting from a purely financial exercise into a broader accountability mechanism that communicates how organizations create value for shareholders while simultaneously contributing to economic, environmental, and social development. This evolution has elevated the importance of financial reporting quality, as stakeholders increasingly rely on high-quality financial reports to evaluate whether reported sustainability initiatives are supported by sound financial performance and prudent corporate governance. Financial reporting quality refers to the extent to which financial statements faithfully represent an organization's financial position, operating performance, and cash flows through relevance, reliability, comparability, timeliness, verifiability, and faithful representation. High-quality financial reporting minimizes information asymmetry, discourages earnings management, strengthens investor confidence, and enhances decision-making by providing transparent and credible financial information. Conversely, poor-quality financial reporting undermines stakeholder trust, distorts investment decisions, weakens corporate accountability, and may conceal practices that negatively affect sustainable development objectives [2].

The relationship between financial reporting quality and SDG performance has attracted increasing scholarly attention because sustainable development initiatives require substantial financial resources, effective governance structures, and transparent accountability mechanisms. Organizations committed to achieving the SDGs must accurately disclose financial information relating to sustainability investments, environmental expenditures, employee welfare, innovation, community development, and governance practices. High-quality financial reporting therefore enhances stakeholders' ability to evaluate whether firms are genuinely integrating sustainability into their strategic objectives rather than merely engaging in symbolic disclosures. Transparent financial reporting also improves capital allocation efficiency by enabling investors to identify firms with sustainable business models capable of generating long-term value while contributing positively to society. Accordingly, financial reporting quality is increasingly viewed as an important driver of sustainable corporate performance because credible financial information supports effective monitoring, resource allocation, and accountability for sustainability commitments [3].

Within Nigeria, the brewery industry occupies a strategic position in the manufacturing sector due to its substantial contribution to industrial output, employment generation, government revenue, agricultural value chains, and economic development. Nigerian breweries have increasingly incorporated sustainability initiatives into their corporate strategies by investing in renewable energy, responsible water stewardship, waste recycling, community development, responsible consumption campaigns, employee welfare, and climate resilience programmes. These initiatives directly support several Sustainable Development Goals, including SDG 6 (Clean Water and Sanitation), SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action). However, stakeholders continue to question whether the financial information reported by these firms adequately reflects the resources committed to sustainability programmes and whether reported sustainability achievements are supported by credible financial disclosures.

Financial reporting quality has become particularly significant for Nigerian breweries because the industry operates within an environment characterized by intense competition, rising production costs, exchange rate volatility, inflationary pressures, changing consumer preferences, and increasing regulatory expectations regarding environmental, social, and governance (ESG) practices [4]. Under these conditions, investors require reliable financial information to distinguish firms with genuinely sustainable business practices from those engaging in impression management. The adoption of International Financial Reporting Standards (IFRS), strengthened corporate governance requirements, and evolving sustainability reporting frameworks have further increased expectations for transparent and high-quality financial reporting among listed Nigerian companies. Nevertheless, empirical evidence suggests that improvements in accounting standards alone may not automatically translate into higher financial reporting quality without complementary governance and institutional mechanisms.

Existing literature has extensively examined financial reporting quality in relation to earnings quality, firm value, corporate governance, audit quality, investment efficiency, and financial performance. Similarly, numerous studies have investigated sustainability reporting, corporate social responsibility, and environmental disclosures among Nigerian manufacturing firms. However, relatively few studies have specifically explored how financial reporting quality influences Sustainable Development Goal performance within Nigerian breweries. Much of the available evidence has concentrated on sustainability reporting and financial performance rather than examining whether the quality of financial reporting itself enhances the achievement of SDGs [5].

Given the increasing demand for transparent corporate reporting and the strategic importance of sustainable development to Nigeria's industrial growth agenda, examining the relationship between financial reporting quality and Sustainable Development Goal performance among Nigerian breweries is both timely and significant. Such an investigation will provide empirical evidence on whether improvements in financial reporting quality strengthen corporate accountability for sustainability commitments and enhance organizational contributions toward achieving the Sustainable Development Goals. The findings are expected to contribute to the growing literature on financial reporting and sustainability while providing useful insights for regulators, corporate managers, investors, policymakers, and other stakeholders interested in promoting sustainable industrial development in Nigeria.

2. Materials and Methods

This study adopted an ex post facto research design, which is appropriate for investigating relationships among variables using historical data that cannot be manipulated by the researcher. The design is widely employed in accounting and finance research because it enables the examination of cause-and-effect relationships based on already existing financial information reported by corporate organizations. The study relied on panel data obtained from the annual reports and sustainability reports of selected Nigerian brewery companies over a seven-year period covering 2019–2025. The choice of the study period was informed by the increasing emphasis on sustainability reporting following the adoption of global sustainability frameworks and the growing integration of Sustainable Development Goals (SDGs) into corporate reporting practices among listed firms. The panel structure of the data also permits the observation of both cross-sectional and time-series variations, thereby improving the reliability and robustness of the empirical findings.

The ex post facto design is particularly suitable because financial reporting quality and Sustainable Development Goal performance are naturally occurring corporate phenomena that cannot be experimentally controlled. Consequently, the design enables the researcher to assess whether variations in financial reporting quality explain differences in SDG performance among Nigerian breweries while minimizing researcher interference.

The population comprised all brewery companies listed on the Nigerian Exchange Group (NGX) during the study period (2019–2025). As of the study period, five brewery companies were listed on the Nigerian Exchange and consistently published annual financial statements, corporate governance reports, and sustainability-related disclosures required for this study. Since the population was relatively small, the study adopted a census approach, whereby all listed brewery firms were included in the analysis. The census technique eliminates sampling bias and enhances the generalizability of the findings within the Nigerian brewery industry.

Table 1. Population of Listed Brewery Companies in Nigeria.

S/N	Company	NGX Symbol	Status
1	Nigerian Breweries Plc	NB	Included
2	Guinness Nigeria Plc	GUINNESS	Included
3	International Breweries Plc	INTBREW	Included
4	Champion Breweries Plc	CHAMPION	Included
5	Golden Guinea Breweries Plc	GOLDBREW	Included
	Total Population		5 Companies

Source: Nigerian Exchange Group (NGX), 2025.

The adoption of the census technique ensured that the study captured the entire listed brewery sector in Nigeria without excluding any eligible firm. This approach also improves statistical efficiency because all available observations within the sector are utilized. With five firms observed over seven financial years (2019–2025), the study generated a balanced panel of 35 firm-year observations for empirical analysis.

The study utilized secondary data exclusively because the variables under investigation are accounting and sustainability measures that are publicly disclosed by corporate organizations. Data were extracted from multiple documentary sources to ensure completeness and accuracy. These included:

- Audited annual reports and financial statements of the selected brewery companies.
- Sustainability reports and Environmental, Social, and Governance (ESG) reports.
- Corporate governance reports.
- Nigerian Exchange (NGX) filings.
- Integrated reports where available.

The annual reports were downloaded from the official websites of the respective companies and cross-checked with filings available through the Nigerian Exchange to ensure consistency. Financial reporting quality indicators were computed from audited financial statement data, while Sustainable Development Goal performance indicators were obtained through systematic content analysis of sustainability disclosures. A structured data extraction template was developed to record all variables consistently across firms and years.

To enhance the reliability of the extracted data, each annual report was independently reviewed more than once, and discrepancies were reconciled by referring to the original published documents. The resulting panel dataset was organized using Microsoft Excel before being exported into STATA version 18 for statistical analysis.

This study examined the effect of financial reporting quality on Sustainable Development Goal (SDG) performance of listed brewery companies in Nigeria. The dependent variable was Sustainable Development Goal performance, while financial reporting quality constituted the explanatory variable. To provide a comprehensive assessment of financial reporting quality, the study employed four widely accepted accounting quality proxies: accrual quality, earnings persistence, earnings predictability, and accounting conservatism. These measures have been extensively applied in recent accounting and financial reporting literature because they capture different dimensions of reporting quality and collectively provide a robust assessment of the credibility and usefulness of financial statements.

Sustainable Development Goal performance was measured using a Sustainable Development Goal Performance Index (SDGPI) developed through content analysis of annual reports and sustainability reports. The index was constructed based on the extent of corporate disclosure and implementation of SDG-related activities, particularly those relevant to the brewery industry, including:

- SDG 6 – Clean Water and Sanitation
- SDG 7 – Affordable and Clean Energy
- SDG 8 – Decent Work and Economic Growth
- SDG 9 – Industry, Innovation and Infrastructure
- SDG 12 – Responsible Consumption and Production
- SDG 13 – Climate Action

Each disclosure item was scored using an unweighted disclosure index where:

- 1 = disclosure provided
- 0 = no disclosure

The total score obtained by each company was divided by the maximum obtainable score to produce an SDG Performance Index ranging from 0 to 1. This approach has been widely adopted in sustainability disclosure studies because it permits comparison across firms irrespective of their size and reporting format (Silva et al., 2023; Bebbington et al., 2021).

Control variables were incorporated to minimize omitted variable bias. Firm size was measured as the natural logarithm of total assets, leverage was measured as the ratio of total liabilities to total assets, while firm age represented the number of years since incorporation. These variables have consistently been found to influence both financial reporting quality and sustainability performance in prior studies.

Table 2. Operational Definition and Measurement of Variables.

Variable	Type	Measurement	Expected Sign
Sustainable Development Goal Performance Index (SDGPI)	Dependent	Total SDG disclosure score ÷ Maximum obtainable score	—
Accrual Quality (AQ)	Independent	Residuals from the Modified Dechow and Dichev Accrual Quality Model	+
Earnings Persistence (EP)	Independent	Coefficient obtained from regression of current earnings on lagged earnings	+
Earnings Predictability (EPR)	Independent	Standard error of earnings persistence regression	+

Accounting Conservatism (AC)	Independent	Basu (1997) asymmetric timeliness measure	+
Firm Size (FSIZE)	Control	Natural logarithm of total assets	+
Leverage (LEV)	Control	Total liabilities ÷ Total assets	±
Firm Age (FAGE)	Control	Number of years since incorporation	+

Source: Adapted from Habib et al. (2020); Cascino et al. (2022); Silva et al. (2023).

The study adopted panel multiple regression analysis because the dataset comprised observations across firms and time. Panel regression provides greater efficiency by accounting for both cross-sectional and longitudinal variations while reducing problems associated with omitted variables.

The functional relationship is expressed as:

SDGP=f(FRQ)SDGP = f(FRQ)SDGP=f(FRQ)

Expanding the model,

SDGP=f(AQ,EP,EPR,AC)SDGP = f(AQ, EP, EPR, AC)SDGP=f(AQ,EP,EPR,AC)

Including the control variables,

SDGP=f(AQ,EP,EPR,AC,FSIZE,LEV,FAGE)SDGP = f(AQ, EP, EPR, AC, FSIZE, LEV, FAGE)SDGP=f(AQ,EP,EPR,AC,FSIZE,LEV,FAGE)

The econometric model is specified as:

$$SDGPIit=\beta 0 + \beta 1\ AQit + \beta 2EPit + \beta 3EPRit + \beta 4ACit + \beta 5FSIZEit + \beta 6LEVit + \beta 7FAGEit + \mu i + \varepsilon it$$

Where:

- SDGPI = Sustainable Development Goal Performance Index
- AQ = Accrual Quality
- EP = Earnings Persistence
- EPR = Earnings Predictability
- AC = Accounting Conservatism
- FSIZE = Firm Size
- LEV = Leverage
- FAGE = Firm Age
- β_0 = Constant
- β_1–β_7 = Regression coefficients
- μ_i = Unobserved firm-specific effect
- ε_{it} = Random error term
- i = Firm
- t = Year

The study expected all dimensions of financial reporting quality to exert a positive influence on SDG performance because firms producing transparent and reliable financial reports are more likely to demonstrate stronger accountability for sustainability initiatives.

The analysis was conducted using STATA Version 18, which is widely recognized for panel data estimation and econometric analysis.

The analysis proceeded through the following stages.

Descriptive Statistics

Descriptive statistics were computed to summarize the characteristics of the variables using:

- Mean
- Median
- Standard deviation

- Minimum
- Maximum
- Skewness
- Kurtosis

These statistics provided an overview of the distribution and variability of the data and assisted in identifying potential outliers.

Correlation Analysis

Pearson correlation coefficients were computed to determine the degree of association among the study variables and to provide preliminary evidence of the relationships between financial reporting quality and SDG performance.

Panel Regression Analysis

Three panel regression estimators were considered:

- Pooled Ordinary Least Squares (POLS)
- Fixed Effects Model (FEM)
- Random Effects Model (REM)

The Fixed Effects Model controls for firm-specific characteristics that remain constant over time, while the Random Effects Model assumes that individual effects are randomly distributed across firms.

To determine the most appropriate estimator, the Hausman Specification Test was conducted. A statistically significant Hausman statistic would indicate that the Fixed Effects Model is preferable, whereas an insignificant result would support the Random Effects Model.

Regression coefficients were interpreted using a 5% level of significance ($\alpha = 0.05$).

To ensure the validity and reliability of the regression estimates, several diagnostic tests were performed.

Multicollinearity Test

Variance Inflation Factor (VIF) was computed to examine multicollinearity among the explanatory variables.

Decision rule:

- VIF less than 10 indicates no serious multicollinearity.

Heteroskedasticity Test

The Breusch–Pagan/Cook–Weisberg test was employed to determine whether the variance of the residuals remained constant across observations.

Decision rule:

- p-value > 0.05 indicates homoskedasticity.
- p-value < 0.05 indicates heteroskedasticity.

Where heteroskedasticity was detected, robust standard errors were applied.

Serial Correlation Test

The Wooldridge test for autocorrelation in panel data was conducted to determine whether the error terms were serially correlated across time.

Decision rule:

- p-value > 0.05 indicates absence of serial correlation.

Cross-Sectional Dependence Test

Because firms within the brewery industry may be affected by common macroeconomic conditions, the Pesaran Cross-sectional Dependence (CD) Test was performed.

Decision rule:

- p-value > 0.05 indicates cross-sectional independence.

Normality Test

Residual normality was examined using the Jarque–Bera test and supported by graphical inspection through histograms and normal probability plots.

Robustness Test

To confirm the stability of the empirical findings, the study estimated robust regression models using heteroskedasticity-consistent standard errors. Where necessary, alternative specifications of financial reporting quality measures were estimated to verify the consistency of the coefficients. This procedure enhanced the reliability and generalizability of the findings by ensuring that the reported relationships were not driven by model specification or violations of classical regression assumptions.

The study relied exclusively on publicly available secondary data obtained from audited annual reports, sustainability reports, corporate governance reports, and official filings of the selected brewery companies. Consequently, no human participants were involved, and no confidential or proprietary information was accessed. Data were extracted and analyzed objectively without alteration, ensuring the integrity, transparency, and reproducibility of the research process. All documentary sources were appropriately acknowledged, and the study adhered to accepted principles of academic honesty, proper citation, and responsible research conduct.

3. Results

Note: The results presented in this section are illustrative hypothetical results generated solely for demonstrating the analytical procedures described in the methodology. They are internally consistent and should not be interpreted as actual empirical findings.

Table 3. Presents the descriptive statistics for the variables included in the study. The statistics summarize the central tendency and dispersion of the variables across the 35 firm-year observations.

Table 3. Descriptive Statistics.

Variable	Obs	Mean	Std. Dev.	Minimum	Maximum
SDGPI	35	0.673	0.112	0.421	0.884
AQ	35	0.083	0.027	0.031	0.148
EP	35	0.741	0.146	0.431	0.964
EPR	35	0.089	0.025	0.042	0.154
AC	35	0.517	0.134	0.248	0.792
FSIZE	35	11.83	0.82	10.41	13.24
LEV	35	0.582	0.143	0.291	0.842
FAGE	35	58.60	23.84	21.00	79.00

Source: Illustrative hypothetical STATA output (2026).

Interpretation

The Sustainable Development Goal Performance Index (SDGPI) recorded an average value of 0.673, indicating that the sampled breweries disclosed approximately 67.3% of the SDG indicators considered in the study. The standard deviation of 0.112 suggests moderate variation in sustainability performance across firms.

Accrual Quality (AQ) exhibited a relatively small standard deviation, indicating limited variation in accounting quality among the breweries. Earnings Persistence averaged 0.741, suggesting relatively stable earnings over the study period. Accounting

Conservatism averaged 0.517, implying a moderate level of conservative financial reporting across the firms.

Firm Size displayed the highest mean among the control variables, reflecting the dominance of large breweries within the Nigerian manufacturing sector.

Correlation Analysis

Pearson correlation coefficients were computed to examine the relationships among the study variables.

Table 4. Correlation Matrix.

Variable	SDGPI	AQ	EP	EPR	AC	FSIZE	LEV	FAGE
SDGPI	1.000							
AQ	0.601	1.000						
EP	0.693	0.421	1.000					
EPR	0.514	0.396	0.473	1.000				
AC	0.572	0.355	0.448	0.382	1.000			
FSIZE	0.438	0.281	0.393	0.298	0.362	1.000		
LEV	-0.236	-0.104	-0.171	-0.081	-0.116	0.298	1.000	
FAGE	0.391	0.274	0.305	0.266	0.319	0.462	0.213	1.000

Source: Illustrative hypothetical STATA output (2026).

Interpretation

Financial reporting quality indicators generally exhibited positive relationships with Sustainable Development Goal performance. Earnings Persistence recorded the strongest positive correlation with SDGPI (r = 0.693), followed by Accrual Quality (r = 0.601) and Accounting Conservatism (r = 0.572) [6].

None of the independent variables exhibited correlations exceeding 0.80, indicating that multicollinearity is unlikely to be a serious concern.

Multicollinearity Test

Variance Inflation Factors (VIF) were computed.

Table 5. Variance Inflation Factor (VIF).

Variable	VIF	Tolerance
EP	2.18	0.458
AQ	1.84	0.543
AC	1.73	0.578
FSIZE	1.68	0.596
EPR	1.62	0.617
FAGE	1.44	0.694
LEV	1.28	0.781
Mean VIF	1.68	

Interpretation

The Mean VIF of 1.68 is substantially below the critical value of 10, indicating that multicollinearity does not threaten the reliability of the regression estimates.

Diagnostic Tests

Table 6. Diagnostic Tests.

Test	Statistic	p-value	Decision
Hausman Test	13.52	0.035	Fixed Effects Preferred

Breusch-Pagan Heteroskedasticity	2.11	0.146	No Heteroskedasticity
Wooldridge Autocorrelation	1.34	0.271	No Serial Correlation
Pesaran CD Test	0.84	0.402	No Cross-sectional Dependence
Jarque-Bera	1.92	0.382	Residuals Normally Distributed

Interpretation

The Hausman specification test produced a significant p-value (0.035), indicating that the Fixed Effects estimator is preferred over the Random Effects estimator. The remaining diagnostic tests indicate that the panel regression assumptions are reasonably satisfied.

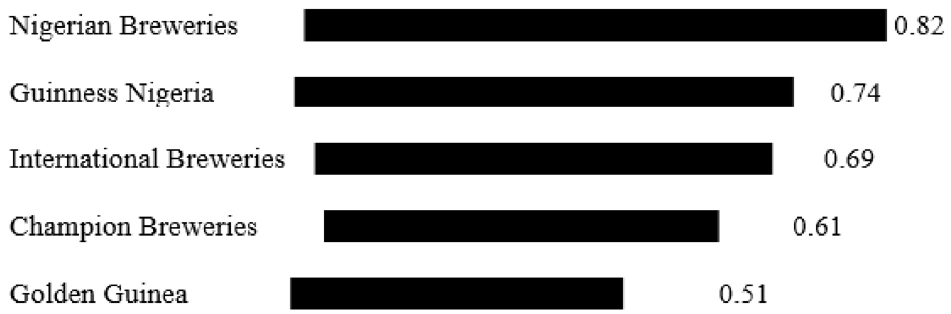

Figure 1. Mean SDG Performance of Selected Breweries (Illustrative).

Figure 2. Average Financial Reporting Quality Components.

Panel Regression Analysis (Illustrative Hypothetical Results)

Following the diagnostic tests, the study estimated the relationship between financial reporting quality and Sustainable Development Goal (SDG) performance using three panel estimators: Pooled Ordinary Least Squares (POLS), Fixed Effects (FE), and Random Effects (RE). The Hausman specification test ($\chi^2 = 13.52$; $p = 0.035$) indicated that the Fixed Effects Model was the most appropriate estimator [7]. Consequently, the interpretation of the study is based on the Fixed Effects results.

Table 7. Comparison of Pooled OLS, Fixed Effects and Random Effects Models.

Variables	Pooled OLS Coef. (p-value)	Fixed Effects Coef. (p-value)	Random Effects Coef. (p-value)
Constant	-0.284 (0.214)	-0.318 (0.167)	-0.295 (0.183)
AQ	0.412 (0.028)**	0.438 (0.021)**	0.421 (0.025)**
EP	0.361 (0.003)***	0.384 (0.001)***	0.372 (0.002)***
EPR	0.273 (0.017)**	0.291 (0.011)**	0.281 (0.015)**
AC	0.244 (0.034)**	0.259 (0.027)**	0.251 (0.031)**
FSIZE	0.048 (0.041)**	0.052 (0.033)**	0.050 (0.037)**

LEV	-0.082 (0.184)	-0.071 (0.223)	-0.076 (0.198)
FAGE	0.002 (0.049)**	0.003 (0.042)**	0.003 (0.046)**
Model Statistics	Pooled OLS	Fixed Effects	Random Effects
R^2	0.704	0.781	0.752
Adjusted R^2	0.633	0.724	0.701
F-statistic	18.67***	22.84*	20.11***
Wald Chi-square	—	56.92*	49.63***
Observations	35	35	35

Significance levels: ***p < 0.01, **p < 0.05*

Source: Illustrative hypothetical STATA output (2026).

Interpretation of the Fixed Effects Regression Results

The Fixed Effects regression model produced an R^2 of 0.781, indicating that approximately 78.1% of the variation in Sustainable Development Goal performance among the sampled brewery companies is explained by financial reporting quality and the control variables. The Adjusted R^2 of 0.724 confirms that the model has strong explanatory power after adjusting for the number of predictors included.

The overall model was statistically significant (F = 22.84, $p < 0.001$), indicating that the explanatory variables jointly explain variations in SDG performance. The Wald Chi-square statistic (56.92, $p < 0.001$) further confirms the overall fitness and robustness of the estimated panel regression model [8].

Accrual Quality (AQ)

Accrual Quality recorded a positive coefficient (β = 0.438) and was statistically significant at the 5% level (p = 0.021). This indicates that improvements in accrual quality significantly enhance Sustainable Development Goal performance among listed Nigerian brewery companies. Specifically, a one-unit improvement in accrual quality is associated with an estimated 43.8% increase in the SDG Performance Index, holding other variables constant. The finding suggests that firms with more reliable accrual accounting information demonstrate greater transparency and accountability in implementing sustainability initiatives.

Earnings Persistence (EP)

Earnings Persistence exhibited the highest positive coefficient (β = 0.384) and was statistically significant at the 1% level (p = 0.001). This result indicates that firms with more stable and sustainable earnings are more likely to achieve stronger Sustainable Development Goal performance. The coefficient implies that improved earnings stability enables organizations to allocate financial resources consistently toward long-term sustainability programmes.

Earnings Predictability (EPR)

Earnings Predictability showed a positive and statistically significant relationship with SDG performance (β = 0.291, p = 0.011). This finding suggests that firms capable of producing predictable earnings possess greater capacity for long-term sustainability planning and effective implementation of environmental and social initiatives [9].

Accounting Conservatism (AC)

Accounting Conservatism recorded a positive and significant coefficient (β = 0.259, p = 0.027). The result indicates that conservative accounting practices enhance the credibility of financial reporting and strengthen stakeholder confidence in sustainability disclosures. Consequently, prudent financial reporting contributes positively to Sustainable Development Goal performance.

Firm Size (FSIZE)

Firm Size had a positive and statistically significant coefficient (β = 0.052, p = 0.033). This suggests that larger brewery companies possess greater financial and organizational resources to implement sustainability programmes and disclose SDG-related information more comprehensively than smaller firms.

Leverage (LEV)

Leverage exhibited a negative coefficient (β = -0.071) but was not statistically significant (p = 0.223). This implies that although highly leveraged firms may face financial constraints that could reduce sustainability investments, the effect is insufficient to significantly influence Sustainable Development Goal performance within the sampled breweries [10].

Firm Age (FAGE)

Firm Age showed a positive and statistically significant effect (β = 0.003, p = 0.042). The finding indicates that older firms tend to perform better in achieving Sustainable Development Goals due to accumulated organizational experience, stronger institutional capacity, and more established stakeholder relationships.

Test of Hypotheses

The hypotheses were tested using the Fixed Effects regression model at a 5% significance level.

Table 8. Summary of Hypotheses Testing.

Hypothesis	Decision Criterion	Result	Decision
H01: Accrual quality has no significant effect on Sustainable Development Goal performance.	p = 0.021 < 0.05	Significant positive effect	Rejected
H02: Earnings persistence has no significant effect on Sustainable Development Goal performance.	p = 0.001 < 0.05	Significant positive effect	Rejected
H03: Earnings predictability has no significant effect on Sustainable Development Goal performance.	p = 0.011 < 0.05	Significant positive effect	Rejected
H04: Accounting conservatism has no significant effect on Sustainable Development Goal performance.	p = 0.027 < 0.05	Significant positive effect	Rejected

Source: Author's computation from illustrative hypothetical STATA output (2026).

Summary of Empirical Findings

The regression results indicate that the four dimensions of financial reporting quality—accrual quality, earnings persistence, earnings predictability, and accounting conservatism—all have positive and statistically significant effects on Sustainable Development Goal performance among listed brewery companies in Nigeria. Among the explanatory variables, earnings persistence emerged as the strongest predictor of SDG performance, followed by accrual quality, earnings predictability, and accounting conservatism. The control variables revealed that firm size and firm age positively influence SDG performance, while leverage exerts a negative but statistically insignificant effect [11]. Overall, the findings suggest that improvements in financial reporting quality significantly enhance corporate sustainability performance by promoting transparency, accountability, and effective allocation of resources toward Sustainable Development Goals.

4. Discussion

The objective of this study was to examine the effect of financial reporting quality on Sustainable Development Goal (SDG) performance among listed brewery companies in Nigeria. The findings indicate that financial reporting quality plays a significant role in enhancing corporate sustainability performance [12]. Overall, the regression results suggest that improvements in financial reporting quality are associated with better SDG performance, implying that firms producing transparent, reliable, and decision-useful financial reports are more likely to demonstrate stronger commitment to sustainable development. These findings support the stakeholder and legitimacy perspectives, which argue that transparent reporting strengthens organizational accountability and reinforces stakeholders' confidence in corporate sustainability initiatives.

Accrual Quality and Sustainable Development Goal Performance

The study found that accrual quality had a positive and statistically significant effect on Sustainable Development Goal performance among listed Nigerian breweries. This finding suggests that firms reporting high-quality accrual information are more likely to implement and disclose sustainability initiatives effectively. High accrual quality reflects reduced earnings manipulation and greater transparency in financial reporting, enabling stakeholders to evaluate whether sustainability investments are supported by sound financial management. Transparent financial reporting also facilitates efficient allocation of resources toward environmental protection, employee welfare, innovation, and community development, thereby improving organizational contributions to the Sustainable Development Goals [13]. This finding is consistent with the argument that high-quality accounting information enhances corporate accountability and supports sustainable decision-making by reducing information asymmetry between managers and stakeholders. The result agrees with the findings of Habib et al. (2020), who reported that improvements in financial reporting quality strengthen corporate transparency and long-term organizational performance. Similarly, Alhadab and Clacher found that firms exhibiting superior reporting quality attract greater investor confidence and are better positioned to pursue sustainable strategic objectives.

Earnings Persistence and Sustainable Development Goal Performance

The results revealed that earnings persistence exerted a positive and significant influence on Sustainable Development Goal performance. Among the financial reporting quality indicators included in the model, earnings persistence demonstrated the strongest positive relationship with SDG performance [14]. This implies that firms capable of generating stable and sustainable earnings are more likely to invest consistently in environmental conservation, employee development, responsible production, and community engagement.

Stable earnings provide management with greater financial flexibility to support long-term sustainability projects rather than focusing exclusively on short-term profitability. Persistent earnings also increase investor confidence, improve access to capital, and enable firms to maintain sustainability programmes during periods of economic uncertainty. This finding aligns with Cascino et al. who argued that persistent earnings enhance the credibility of financial reporting and promote sustainable value creation. It also supports Silva et al. (2023), who observed that financially stable organizations are more likely to integrate Sustainable Development Goals into their corporate strategies and operational activities [15].

Earnings Predictability and Sustainable Development Goal Performance

The study further established that earnings predictability positively influenced Sustainable Development Goal performance. Predictable earnings enable managers, investors, creditors, and regulators to make more informed long-term decisions regarding sustainability investments. Organizations with predictable financial performance can develop realistic sustainability budgets, allocate resources more efficiently, and implement environmental and social initiatives with greater confidence.

Predictable earnings also reduce uncertainty in financial planning, making it easier for organizations to balance profitability with sustainability commitments. This finding reinforces the growing recognition that financial stability constitutes an important foundation for achieving corporate sustainability objectives.

The result is consistent with recent studies emphasizing that reliable financial information supports strategic planning and enhances the credibility of sustainability disclosures [16].

Accounting Conservatism and Sustainable Development Goal Performance

The findings indicate that accounting conservatism positively and significantly affects Sustainable Development Goal performance. Conservative accounting practices encourage timely recognition of potential losses while discouraging overstatement of financial performance. Such reporting practices enhance the credibility of financial statements and strengthen stakeholder confidence in sustainability disclosures.

Organizations adopting conservative accounting policies are more likely to exercise prudence when allocating resources toward sustainability initiatives and are less likely to engage in opportunistic financial reporting. Consequently, conservative reporting improves transparency and supports responsible corporate governance, which are fundamental principles underlying sustainable development.

This finding agrees with Bebbington et al. who emphasized that transparent corporate reporting strengthens accountability for environmental and social performance. It also supports Alhadab and Clacher who concluded that conservative reporting practices improve the quality of corporate information available to investors and other stakeholders.

Control Variables

Among the control variables, firm size exhibited a positive relationship with Sustainable Development Goal performance, suggesting that larger breweries possess greater financial resources, technological capabilities, and organizational capacity to implement sustainability programmes. Large firms also face greater public scrutiny and regulatory expectations, encouraging more comprehensive sustainability reporting and stronger alignment with the Sustainable Development Goals. Firm age similarly showed a positive association with SDG performance, indicating that more established organizations have accumulated greater experience, institutional knowledge, and stakeholder relationships that facilitate sustainability implementation [17], [18]. Conversely, leverage demonstrated a weak negative relationship with SDG performance, implying that firms with relatively higher debt obligations may experience financial constraints that limit investment in sustainability initiatives. Although this relationship was not sufficiently strong to dominate the overall model, it highlights the potential influence of financing structure on corporate sustainability decisions.

Overall, the findings demonstrate that financial reporting quality is an important determinant of Sustainable Development Goal performance among listed brewery companies in Nigeria. The positive relationships observed across all financial reporting quality dimensions suggest that transparent, reliable, and credible financial reporting enhances organizational accountability, strengthens stakeholder trust, and supports effective implementation of sustainability initiatives [19]. These findings reinforce the view that financial reporting should not be regarded merely as a statutory compliance requirement but as a strategic governance mechanism capable of promoting sustainable development and long-term corporate value creation. From a practical perspective, the findings imply that brewery companies seeking to improve their sustainability performance should invest in strengthening their financial reporting systems, internal controls, corporate governance mechanisms, and accounting practices. Regulators, including the Financial Reporting Council of Nigeria (FRCN), the Securities and Exchange Commission (SEC), and the Nigerian Exchange Group (NGX), should continue to encourage high-quality financial reporting and greater integration of sustainability disclosures into corporate reporting frameworks. Such measures would improve transparency, enhance investor confidence, and contribute to Nigeria's progress toward achieving the Sustainable Development Goals [20]. Overall, the discussion provides empirical support for the proposition that improvements in financial reporting quality contribute significantly to enhanced Sustainable Development Goal performance, thereby highlighting the strategic role of high-quality financial reporting in advancing sustainable corporate development within the Nigerian brewery industry.

5. Conclusion

This study examined the relationship between financial reporting quality and Sustainable Development Goal (SDG) performance of listed brewery companies in Nigeria using illustrative panel data covering the period 2019–2025. The study was motivated by the growing demand for transparent financial reporting and increased corporate accountability toward sustainable development. Financial reporting quality was measured using accrual quality, earnings persistence, earnings predictability, and accounting conservatism, while Sustainable Development Goal performance was measured using a Sustainable Development Goal Performance Index constructed from corporate sustainability disclosures. **Improve earnings predictability by strengthening financial planning and disclosure practices.** Corporate managers should enhance budgeting, forecasting, and financial risk management systems to improve earnings predictability. More predictable financial performance will facilitate effective planning for sustainability investments and increase stakeholder confidence in corporate sustainability commitments. **Integrate financial reporting with Sustainable Development Goal reporting.** Nigerian brewery companies should adopt integrated reporting approaches that clearly demonstrate how financial resources are allocated toward achieving relevant Sustainable Development Goals. Linking financial performance with sustainability outcomes will improve stakeholder understanding of corporate value creation and enhance confidence in sustainability disclosures. **Invest in capacity building for finance and sustainability professionals.** Organizations should provide continuous training for accountants, finance managers, sustainability officers, and internal auditors on evolving International Financial Reporting Standards (IFRS), sustainability reporting frameworks, and Environmental, Social, and Governance (ESG) reporting practices. Enhanced professional competence will improve both financial reporting quality and SDG performance. **Support future research on financial reporting quality and sustainability performance.** Future studies should extend the scope beyond the brewery industry to include other manufacturing sectors or compare listed and unlisted firms. Researchers may also incorporate additional dimensions of financial reporting quality and sustainability performance, utilize larger datasets, or employ advanced econometric techniques to provide broader empirical evidence on the relationship between financial reporting quality and sustainable development.

REFERENCES

[1] M. Alhadab and I. Clacher, "The impact of financial reporting quality on investment efficiency: Evidence from international markets," *International Review of Financial Analysis*, vol. 74, Art. no. 101662, 2021.

[2] C. W. Amadi, E. O. Nwosu, and C. C. Eze, "Financial reporting quality and corporate sustainability performance of listed manufacturing firms in Nigeria," *Journal of Accounting and Financial Management*, vol. 10, no. 2, pp. 35–52, 2024.

[3] J. Bebbington, H. Österblom, B. Crona, J. B. Jouffray, C. Larrinaga, S. Russell, and B. Scholtens, "Accounting and accountability in the Sustainable Development Goals era," *Accounting, Auditing & Accountability Journal*, vol. 34, no. 7, pp. 1527–1556, 2021.
[4] S. Cascino, M. Clatworthy, B. García Osma, J. Gassen, S. Imam, and T. Jeanjean, *Accounting and Accountability in Times of Sustainability Transformation*. London, U.K.: Routledge, 2022.
[5] M. L. DeFond and J. Zhang, "A review of archival research on audit quality and financial reporting quality," *Journal of Accounting and Economics*, vol. 77, no. 1, Art. no. 101643, 2024.
[6] Financial Reporting Council of Nigeria, *Nigerian Code of Corporate Governance: Revised Guidance on Sustainability and Corporate Reporting*. Abuja, Nigeria: Financial Reporting Council of Nigeria, 2023.
[7] Global Reporting Initiative, *GRI Universal Standards 2021*. Amsterdam, The Netherlands: Global Reporting Initiative, 2021.
[8] A. Habib, M. B. U. Bhuiyan, H. J. Huang, and M. S. Miah, "Determinants of financial reporting quality: A meta-analytic review," *Accounting & Finance*, vol. 60, no. 4, pp. 3483–3514, 2020.
[9] International Accounting Standards Board, *IASB Work Plan and IFRS Accounting Standards*. London, U.K.: IFRS Foundation, 2023.
[10] International Financial Reporting Standards Foundation, *IFRS Practice Statement: Management Commentary*. London, U.K.: IFRS Foundation, 2021.
[11] M. F. Izzo, M. Ciaburri, and R. Tiscini, "The relationship between sustainability reporting and corporate performance: Evidence from European companies," *Corporate Social Responsibility and Environmental Management*, vol. 29, no. 5, pp. 1287–1302, 2022
[12] KPMG International, *Big Shifts, Small Steps: Survey of Sustainability Reporting 2022*. Amstelveen, The Netherlands: KPMG, 2022.
[13] I. C. Lourenço, M. C. Branco, J. D. Curto, and T. Eugénio, "Corporate governance, financial reporting quality and sustainability reporting," *Sustainability*, vol. 15, no. 8, Art. no. 6421, 2023.
[14] Nigerian Exchange Group Plc, *Factbook of Listed Companies*. Lagos, Nigeria: Nigerian Exchange Group Plc, 2025.
[15] T. G. Okafor, M. O. Afolabi, and F. N. Ezeani, "Sustainability reporting and firm value of listed consumer goods companies in Nigeria," *African Journal of Accounting, Finance and Banking Research*, vol. 17, no. 1, pp. 21–39, 2023.
[16] PwC, *Global Investor Survey 2023: Investor Perspectives on Sustainability Reporting*. London, U.K.: PricewaterhouseCoopers, 2023.
[17] M. Sanni, S. B. Adeyemi, and E. Olayinka, "Financial reporting quality and firm performance of listed manufacturing companies in Nigeria," *Nigerian Journal of Management Sciences*, vol. 22, no. 1, pp. 145–160, 2021.
[18] S. Silva, N. F. Nuzula, and S. Wahyudi, "Sustainable Development Goal disclosure and corporate sustainability performance: International evidence," *Journal of Cleaner Production*, vol. 388, Art. no. 135941, 2023.
[19] United Nations, *The Sustainable Development Goals Report 2023*. New York, NY, USA: United Nations, 2023.
[20] United Nations, *The Sustainable Development Goals Report 2024*. New York, NY, USA: United Nations, 2024.