TSU-International Journal of Accounting and Finance (TSUIJAF)
e-ISSN: 28811-2709, p-ISSN: 28811-2695.Volume 4, Issue 2 (June, 2025).

MODERATING EFFECT OF OWNERSHIP CONCENTRATION ON ENVIRONMENTAL SUSTAINABILITY REPORTING AND FIRM VALUE OF LISTED SERVICE COMPANIES IN NIGERIA

Prof. A. D. Zubairu[1], M. M. Naburgi[2] & OSONGBULE, Josiah Maimako[3]

[1]zubairusda@yahoo.com,
[2]musanaburgi@yahoo.com
[3]josiah.maimako@yahoo.com

Abstract

Given the growing global emphasis on sustainability, firms are increasingly required to disclose their environmental performance. The study examined the moderating effect of ownership concentration on the relationship between environmental sustainability reporting and firm value among listed service companies in Nigeria. The study employed an ex-post facto research design. Using a panel data approach and the Generalized Method of Moments (GMM), the study analyzes data from 220 firm-year observations. The findings reveal that environmental sustainability reporting (ENV) has a significant positive effect on firm value (FV), indicating that firms engaging in sustainability disclosures experience increased investor confidence and financial performance. Ownership concentration (OWNCO), however, exhibits a significant negative moderating effect, suggesting that in firms where ownership is highly concentrated, dominant shareholders may prioritize short-term financial gains over long-term sustainability investments. The study concluded that, there is need for stronger regulatory frameworks to enforce sustainability reporting and corporate governance reforms that mitigate the entrenchment effects of controlling shareholders. The study recommends that regulatory bodies such as the Financial Reporting Council of Nigeria (FRCN) and the Securities and Exchange Commission (SEC) should enforce mandatory sustainability reporting guidelines aligned with global frameworks such as the Global Reporting Initiative (GRI) and the International Financial Reporting Standards (IFRS). This would enhance the credibility of sustainability disclosures and ensure comparability across firms.

Keywords: Environmental Sustainability Reporting, Firm Value, Ownership Concentration, Corporate Governance.

Introduction

Environmental sustainability reporting has become an important aspect of corporate governance and financial performance worldwide, with an increasing focus on transparency, accountability, and corporate social responsibility. Growing concerns about environmental degradation, climate change, and the social impact of corporate activities have led regulators and investors to pressure companies to disclose their environmental sustainability practices. In developed economies, sustainability reporting has become institutionalized through stringent regulatory frameworks and investor demands for responsible business practices. However, in emerging economies such as Nigeria, the adoption and implementation of environmental sustainability reporting remains inconsistent, with variations across industries and ownership structures.

Nigeria's services sector, which includes banking, telecommunications, insurance, and hospitality, plays a vital role in the economy. However, the extent to which these companies engage in environmental sustainability reporting varies widely. While some multinational corporations and publicly listed companies have incorporated sustainability disclosures into their corporate reporting, many others remain reluctant to do so due to weak regulatory enforcement, a lack of standardized reporting guidelines, and limited stakeholder pressure. The Nigerian Exchange Group has made significant strides in promoting sustainability disclosure, but implementation remains suboptimal. According to the 2023 Sustainability Disclosure Report by the Nigerian Exchange Group, only about 40% of listed services companies provide detailed environmental impact reports, and most disclosures are superficial and not in line with global best practices. This demonstrates a gap between the policy recommendations contained in the sustainability report and actual corporate behavior.

In Nigeria, many service companies have highly concentrated ownership, with a small group of institutional investors, government agencies, or family businesses controlling the majority of shares (Uwuigbe, Uwuigbe, & Bernard 2015). This concentrated ownership structure has both positive and negative impacts on environmental sustainability reporting and corporate value (Nmehielle & Adebayo, 2019. On the one hand, dominant shareholders may influence corporate decisions in ways that promote long-term value creation, including through robust sustainability disclosures. On the other hand, if these shareholders prioritize short-term financial gains over long-term sustainability goals, environmental reporting may be ignored or manipulated for reputational gains (La Porta, Lopez-de-Silanes, & Shleifer, 1999).

Research on the relationship between corporate ownership structure and environmental practices has reached mixed conclusions. Some researchers believe that firms with concentrated ownership are more likely to adopt sustainability reporting as a risk management strategy to protect their financial interests and reputation (Ahmed & Hamid, 2022). Others argue that high ownership concentration may weaken commitment to sustainability, as controlling shareholders may prioritize profit maximization over environmental concerns (Oladipo et al., 2023). Empirical findings from the Nigerian corporate sector indicate that firms with significant ownership concentration are more likely to engage in sustainability reporting, while family firms tend to lag behind due to limited external pressures (Uchenna & Adegbite, 2021). These differences highlight the need for more in-depth research into the moderating role of ownership concentration in the relationship between environmental sustainability reporting and firm value in the Nigerian services sector.

Corporate value is typically measured by market indicators such as share price performance, return on equity (ROE), and earnings per share (EPS), and is significantly influenced by corporate governance mechanisms such as sustainability reporting. Investors and stakeholders increasingly view environmental performance as a key determinant of a company's long-term viability. The 2022 Global Sustainable Investment Alliance Report shows that over US$35 trillion in assets are now managed according to environmental, social, and governance (ESG) criteria worldwide, reflecting a significant shift in investor preferences. In Nigeria, although ESG investing is still in its infancy, there has been a clear increase in demand for sustainability-related disclosures from investors and regulators. Adeyemi and Fabuhonda (2023) found that service companies with comprehensive sustainability reporting had higher market valuations and lower capital expenditures, suggesting that transparency in environmental practices can increase firm value.

Despite the growing literature on sustainability reporting and corporate value, there remains a gap in understanding how ownership concentration affects this relationship, particularly in the services sector in Nigeria. Existing research focuses primarily on the manufacturing and mining industries, which have more pronounced and direct environmental impacts. Although the services sector is generally considered to have the least environmental impact, it is not immune to sustainability issues, particularly in the areas of energy consumption, waste management, and operational carbon emissions. Given the unique ownership structure of the Nigerian services sector, it is important to examine whether firms with concentrated ownership structures are more or less likely to engage in meaningful environmental sustainability reporting and how this, in turn, affects their market value. This study aims to fill this gap by examining the moderating effect of ownership concentration on the relationship between environmental sustainability reporting and corporate value among listed services firms in Nigeria. To achieve the research objectives, we tested the following hypotheses: **$H_0$1:** Environmental sustainability reporting has no significant effect on the firm value of listed service companies in Nigeria. **$H_0$2:** Ownership concentration has no significant effect on firm value of listed service companies in Nigeria. **$H_0$3:** Ownership concentration has no significant effect on environmental sustainability reporting and firm value of listed service companies in Nigeria.

Literature Review

Concept of Firm Value

In recent years, scholars have advanced a range of perspectives to define firm value, each emphasizing different aspects of what constitutes a company's overall worth. Park and Byun (2022) suggest that firm value is fundamentally about the performance of management in fulfilling their responsibilities to shareholders, implying that improvements in firm value directly contribute to enhanced shareholder welfare. Their definition places a strong emphasis on the effectiveness of management and its critical role in maximizing corporate performance.

In another approach, Gyapong et al. (2023) conceptualize firm value as the present value of expected future cash flows, while also accounting for the various risk factors that may influence these projections. This definition highlights the forward-looking nature of firm value and underscores the importance of risk assessment and future performance in the valuation process.

Kowalewski (2023) offers a broader perspective by defining firm value through a composite of financial performance indicators such as financial leverage, profitability, firm size, liquidity, growth, and asset tangibility. This multifaceted approach reflects the complex interplay of various financial metrics that together determine a firm's overall valuation.

Environmental Sustainability Reporting

Environmental sustainability reporting has evolved in recent years into a comprehensive, strategic process through which companies communicate their environmental performance, risks, and opportunities in a manner that is both quantitative and qualitative. Recent scholarship emphasizes that this reporting goes well beyond compliance with regulations; it represents a dynamic tool for stakeholder engagement, strategic planning, and transparency. For instance, Chang and Park (2022) contend that environmental sustainability reporting should be viewed as an integrated disclosure practice that not only presents environmental data such as carbon emissions, energy consumption, and waste management but also provides narrative context that links these metrics to a company’s overall strategy and long-term environmental goals. This approach helps stakeholders understand how a company manages its environmental impacts and adapts to emerging challenges.

In a similar vein, Harrison and Lee (2020) defined environmental sustainability reporting as a mechanism for demonstrating corporate accountability and transparency. They argue that, when effectively executed, such reporting serves to bridge the information gap between companies and their stakeholders, enabling investors, regulators, and consumers to assess the true environmental performance of an organization. Their work highlights the importance of disclosing not only past performance but also future risks and opportunities related to environmental sustainability. More recently, Gyapong et al. (2023) have built on these ideas by emphasizing that effective reporting must now include emerging issues such as water scarcity, biodiversity loss, and circular economy practices thereby providing a holistic view of environmental stewardship. They stress that incorporating a broad range of environmental indicators is critical for companies to fully capture the complex interplay between their operations and the natural environment.

Contemporary research also underscores the importance of aligning reporting practices with established global frameworks. The Global Reporting Initiative (GRI, 2023) continues to provide widely recognized standards that help ensure disclosures are consistent, comparable, and verifiable. In parallel, Kumar and Desai (2020) argued that integrating advanced data analytics into environmental sustainability reporting not only enhances the accuracy and timeliness of the reported data but also supports more agile decision-making in response to environmental challenges. Collectively, these recent definitions reveal a growing consensus that environmental sustainability reporting is a multifaceted, dynamic process one that is essential for building corporate credibility, fostering investor confidence, and ultimately driving the transition toward a more sustainable economy.

Concept of Ownership Concentration

Chang et al. (2016) defined ownership concentration as the degree to which shareholders own a large number of shares in a company. It also refers to absolute concentration of ownership, where only one shareholder has absolute power over the company, typically holding 50% of the shares. This process of ownership concentration is also known as collective holding. The Nigerian Securities and Exchange Commission, in its corporate governance guidelines, defines a major shareholder as a shareholder who owns more than 5% of a company's shares (Abdelfattah et al., 2021). Generally, shareholders who own 5% or more of a company's shares are considered substantial (majority) shareholders. Major shareholders can be individuals, corporations, institutional investors, or governments.

Empirical Review

Rivera and Vega (2022) analyzed the impact of environmental sustainability reporting on corporate value in the Mexican market using data from 100 listed companies. The study covers the period from 2012 to 2020 and uses regression analysis and a modified environmental sustainability index to measure the intensity of corporate environmental disclosures. The study analysis finds that companies with comprehensive environmental sustainability reporting tend to have higher market value, particularly in industries such as manufacturing and construction. The study also shows that corporate social responsibility has greater benefits for firm value when a company's sustainable development practices are aligned with international environmental standards. One criticism of the study is that it used a modified environmental sustainability index, which may not fully reflect the scope of sustainable activities undertaken by companies. Furthermore, while the study highlights the importance of international standards, it could also explore how local regulations affect sustainability reporting in developing economies.

Chang and Park (2022) examined how environmental sustainability reporting affects firm value in the context of Southeast Asia. The study included 150 companies listed on various stock exchanges in Southeast Asia from 2015 to 2021. The authors used longitudinal data analysis to assess the impact of sustainability-related disclosures on firm value, focusing on market-based value measures. Research indicates a positive relationship between sustainability reporting and firm value, particularly for companies operating in environmentally sensitive industries. Research suggests that environmental sustainability disclosures provide investors with more information about a company's long-term prospects, thereby increasing firm value. However, the study focuses on Southeast Asia, which may limit its applicability to other regions with different regulatory and market environments. Furthermore, the study does not adequately address how sustainability practices are monitored or verified, which may affect the credibility of environmental reporting.

Alvarado and Gonzalez (2021) studied the impact of environmental sustainability reporting on firm value in the Latin American context, focusing specifically on companies listed on the Brazilian market. The study covers the period from 2013 to 2020 and includes 80 companies. The authors use structural equation modeling (SEM) to explore the relationship between sustainability reporting and firm value, focusing on the social and environmental impacts disclosed in annual reports. The study finds that companies with higher-quality environmental sustainability disclosures experienced greater value growth, particularly those operating in the energy and agriculture sectors. The study also highlights the role of government regulations in shaping sustainability reporting practices, which in turn impacts a company's market value by improving its credibility among investors. A potential criticism of this study is that it uses structural equation modeling, which can be complex and may overlook simpler but effective methods for assessing the relationship between ROI and firm value. The study was also limited to Brazilian companies, and its findings may not be applicable to other Latin American countries with different regulatory frameworks and market dynamics.

James and Richards (2021) focused on the relationship between environmental sustainability reporting and firm value in the UK market. Their study covered the period from 2015 to 2020 and analyzed a sample of 120 companies. The authors used regression analysis techniques to examine the impact of corporate social responsibility on market-based and accounting-based performance measures. The results show that environmental sustainability reporting has a positive impact on firm value, particularly in industries with high environmental risks. Companies that disclose their sustainability strategies are better able to attract socially responsible investors, thereby increasing their market value and financial performance. One criticism of the study is that, while it provides strong evidence of the positive impact of corporate social responsibility on firm value, it does not account for potential differences in the quality of environmental reporting across companies. The study could have considered other variables, such as the role of environmental certifications or third-party audits, which may affect the credibility of sustainability reporting.

Lee and Lee (2021) conducted a study to investigate the moderating effect of environmental sustainability reporting on firm value, focusing on corporate governance practices. The study used financial data for 150 listed companies in South Korea from 2010 to 2019, combining data regression and moderation analysis to assess the impact of sustainability reporting, while incorporating corporate governance variables such as board independence and ownership structure. The results show that corporate governance plays a significant role in fostering the positive relationship between environmental sustainability reporting and firm value. Companies with independent boards and higher levels of shareholder ownership experience stronger positive effects from environmental disclosures. Limitations of the study include its reliance on corporate governance variables, which may not fully explain the complex factors influencing sustainability reporting practices. Furthermore, the study focused only on Korean companies and may not reflect the situation in other countries with different regulatory environments.

Harrison and Lee (2020) aim to examine the impact of environmental sustainability reporting on financial performance and firm value in the European Union context. The study covers the period from 2015 to 2019 and analyzes 150 companies listed on various European stock exchanges. The researchers used regression analysis to assess the impact of environmental sustainability disclosures on accounting-based performance measures (such as return on assets, ROA) and market-based measures (such as Tobin's Q). The study finds that environmental sustainability reporting has a significant positive impact on firm value, particularly relative to market-based performance indicators. The results show that companies with detailed and transparent environmental information tend to attract more investors, leading to increased stock prices and overall market capitalization. Furthermore, this effect is more pronounced in industries facing significant regulatory pressure or reputational risks related to environmental sustainability. While the findings are consistent with previous research, there are some limitations. A major criticism of the study is that it fails to address potential endogenous factors: companies with better market performance may be more likely to engage in sustainability reporting, complicating causal interpretations. Furthermore, the focus on EU-listed companies may limit the applicability of the findings to companies in other regions, where regulatory environments and market conditions may differ. Future research could improve this by addressing potential endogenous factors and expanding the sample to include companies from emerging markets or non-European countries.

Wang and Xu (2020) examine how environmental sustainability reporting affects corporate value, focusing on the role of institutional investors in shaping corporate behavior. The study analyzed data from 200 companies listed on the Shanghai Stock Exchange between 2012 and 2019. Using a fixed-effects regression model, the authors examined the relationship between environmental sustainability reporting and firm value (measured by Tobin's Q coefficient), taking into account institutional ownership structure. Their results indicate that companies with higher levels of environmental sustainability reporting tend to have higher market values, especially when they have significant institutional investor ownership. Research suggests that corporate accounting can encourage institutional investors to pursue better environmental practices, ultimately leading to improved corporate performance. One limitation of the study is that it focuses only on institutional investors, which may limit understanding of other factors such as consumer perceptions or regulatory pressures. Furthermore, the study does not consider the potential impact of geographical or cultural differences that may affect business sustainability in different regions.

Kumar and Desai (2020) conducted a study to analyze the impact of environmental sustainability reporting on firm value in the context of the Australian stock market. The study analyzed data from 100 companies listed on the Australian Securities Exchange (ASX) between 2014 and 2018. The study used a multistep regression model to measure the relationship between environmental sustainability reporting, firm value, and performance. Their results confirm the positive relationship between environmental sustainability disclosure and firm value, particularly for companies that are more transparent about their carbon footprint and sustainability practices. The study highlights the importance of environmental reporting in enhancing investor confidence and creating long-term shareholder value. One limitation of the study is that the time frame of the analysis is relatively short and may not be able to capture the long-term impact of sustainability reporting on firm value. Furthermore, although the study focused on Australian companies, it may not be applicable to companies in developing markets or emerging economies where sustainability reporting practices are less developed.

Theoretical Framework

The theoretical foundation of this study is based on three major theories: stakeholder theory, legitimacy theory, and agency theory. These theories provide a comprehensive understanding of how ownership concentration affects the relationship between environmental sustainability reporting and corporate value.

Stakeholder Theory: Edward Freeman proposed the stakeholder theory in 1984. The theory states that companies should consider the interests of multiple stakeholders rather than focusing solely on shareholder wealth. This perspective is particularly relevant to environmental sustainability reporting, as companies operate within broader social and environmental systems for which they must be accountable. Companies that prioritize stakeholder engagement through transparent sustainability reporting are more likely to improve their reputation and long-term financial stability. In the context of ownership concentration, the theory claims that when ownership is highly concentrated in the hands of a few stakeholders, these stakeholders may determine the level of environmental disclosure based on their own interests. If major shareholders prioritize long-term sustainability and reputation, they may encourage stronger sustainability reporting, thereby increasing firm value. Conversely, if they focus on short-term profitability, they may neglect sustainable disclosures, potentially harming firm value.

Legitimacy Theory: First proposed by Mark Suchman in 1995, legitimacy theory further explains why companies engage in environmental sustainability reporting. According to this theory, companies seek legitimacy by aligning their operations with social norms and expectations. Companies that fail to fulfill their environmental responsibilities may face reputational damage, regulatory scrutiny, or loss of stakeholder confidence. In the Nigerian business environment, the implementation of regulations related to sustainability reporting is still evolving, and legitimacy issues play a significant role in corporate behavior. Companies with highly concentrated ownership may adopt sustainability reporting to gain legitimacy or reduce such disclosures if controlling shareholders do not consider them necessary. This creates a complex dynamic where ownership concentration can act as a mediator, either strengthening or weakening the link between sustainability reporting and corporate value. Recent studies, such as that by Hamel and Schlick (2021), highlight the risk of "eco-fabrication," where companies publish token sustainability reports to appear legitimate but do not actually achieve real environmental improvements. This highlights the importance of ownership structure in determining whether a company is truly committed to sustainability or merely using it as a strategic tool for legitimacy.

Agency Theory: Agency theory, proposed by Michael Jensen and William Meckling in 1976, offers an alternative perspective on the role of ownership concentration in corporate sustainability decisions. This theory is based on the conflict of interest between managers (agents) and shareholders (managers). Managers' pursuit of their own self-interest may be incompatible with maximizing shareholder value, especially in companies with dispersed ownership. However, in companies with concentrated ownership, large shareholders have greater control over corporate decisions, including sustainability reporting. The impact of this control depends on whether these major shareholders prioritize environmental responsibility. If they view sustainability as a value-enhancing strategy, they may push for greater transparency and accountability in reporting. Conversely, if they view it as an additional cost, they may limit sustainability initiatives, potentially reducing the company's legitimacy and long-term value.

Some empirical studies have applied these theories to understand corporate sustainability practices. Garcia-Sanchez et al. (2019) found that companies with high stakeholder engagement tend to provide more transparent sustainability reports, consistent with stakeholder theory. Similarly, Ngwakwe (2022) examined legitimacy pressures faced by Nigerian firms and found that high ownership concentration tends to weaken environmental disclosure unless there is regulatory or active stakeholder intervention. Furthermore, Hussein, Rigoni, and Orig (2018) demonstrate how agency theory can explain variations in sustainability reporting, as concentrated ownership often leads to selective disclosure based on shareholder priorities.

These theories highlight the complexity of environmental sustainability reporting in the context of concentrated ownership. Stakeholder theory highlights the role of different interests in shaping corporate sustainability behavior, legitimacy theory explains how firms use sustainability reporting to maintain social and regulatory approval, and agency theory explains how ownership structure influences corporate decision-making. By integrating these perspectives, this study aims to gain deeper insights into how ownership concentration affects the relationship between environmental sustainability reporting and firm value among service firms listed on the Nigerian Exchange Group.

Methodology

This study employed an ex-post facto research design, a methodological approach chosen deliberately due to its reliance on secondary quantitative data. The utilisation of an ex-post facto research design is driven by the retrospective nature of the investigation, which sought to analyze past events in a manner akin to conducting a postmortem examination. The population of interest for this study encompasses a group of twenty-two (22) service companies that are publicly listed on the Nigerian Exchange Group (NGX) over ten years, from 2014 to 2023. The selection of these specific service companies is based on information extracted from the NGX Factbook of 2023, which meticulously cataloged the composition of the stock exchange during that year.

In the pursuit of this research, an extensive collection of secondary data will be meticulously gathered and extracted from the financial statements of the carefully selected sample of service companies that held listings on the Nigerian Exchange Group (NGX) during the designated timeframe spanning from 2014 to 2023. The study used panel regression for the listed sampled service companies on the Nigerian Exchange Group in the estimation of the regression equation under consideration.

Econometrically, this is specified as:

$$FV_{it} = \beta_{0it} + \beta_1 FV_{it-1} + \beta_2 ENVT_{it} + \beta_3 OWNC_{it} + \beta_4 ENVT_{it} * OWNC_{it} + e_{it}$$

Where:

FV	=	Firm value
ENVT	=	Environment sustainability reporting
OWNC	=	Ownership Concentration
β_0	=	Intercept
β1-4	=	Coefficient of the independent variables
e	=	Error term
i	=	Industry type (firm)
t	=	Year

S/N	Variable	Measurement	Source
1	Firm value	Tobin's Q is calculated by the ratio of the market value of the firm plus debt divided by the book value of its assets.	Endri 2019 Almaqoushi& Powell (2017), Agyemang-Mintah & Schadewitz (2017), Zubair (2016)
2	Environmental sustainability reporting	Global Reporting Initiative G4 Index	GRI (2023)
6	Ownership Concentration	The proportion of total shares held by the top five shareholders	Al-Jaifi (2017)

Source: Researcher's Compilation, 2025

Results and Discussion of Findings

Table 1: Descriptive Statistics

	Mean	Max	Mini	Std.Dev	Skew	Kurt	Obs
FV	0.386131	0.606851	0.004479	0.138001	-0.85492	3.536535	220
ENV	0.299150	0.916667	0.083333	0.147651	1.431871	4.704553	220
OWNCO	0.618959	0.978000	0.122000	0.240535	-0.53285	2.016545	220

Source: Eviews Output, 2025

The descriptive statistics presented in Table 1 provide insights into the distribution and variability of firm value, environmental sustainability reporting, and ownership concentration among the 220 listed service companies in Nigeria. Firm value (FV) has a mean of 0.3861, with a minimum of 0.0045 and a maximum of 0.6069, showing that there is a considerable disparity in firm performance among the sampled companies. The negative skewness of -0.8549 suggests that more firms have a relatively higher firm value, while a few outliers pull the distribution toward the lower end. The kurtosis value of 3.54 indicates a moderately peaked distribution, meaning most firms have firm values clustered around the mean, but some firms significantly underperform. The accounting implications of these findings suggest that firms with lower values may struggle with weak earnings management, poor financial disclosure, or ineffective corporate governance. A higher firm value is often associated with strong financial reporting, transparency, and effective financial controls, which attract investors and enhance market confidence.

Environmental sustainability reporting (ENV) shows a mean of 0.2991, with values ranging between 0.0833 and 0.9167, highlighting considerable differences in corporate disclosure practices. The positive skewness of 1.4319 suggests that while a few firms engage in extensive environmental disclosures, the majority provide minimal or limited sustainability reports. The kurtosis value of 4.70 indicates a highly peaked distribution, meaning that most firms have low reporting scores with a few extreme cases exhibiting comprehensive sustainability reporting. From an accounting perspective, these results underscore the inconsistent application of sustainability reporting standards such as the IFRS, Global Reporting Initiative (GRI), or Sustainability Accounting Standards Board (SASB). While some firms comply with environmental disclosure regulations, the low mean suggests that sustainability reporting remains underdeveloped in the Nigerian service industry. This inconsistency can affect financial decision-making by stakeholders who rely on transparent disclosures for risk assessment and long-term investment planning.

Ownership concentration (OWNCO) has a mean value of 0.6189, suggesting that in most firms, ownership is concentrated in the hands of a few shareholders. The values range from 0.122 to 0.978, showing variation in ownership structures across the sampled firms. The negative skewness of -0.5329 indicates that more firms have ownership concentration above the mean, meaning that controlling shareholders exert significant influence over corporate decisions. The kurtosis value of 2.02 suggests that the distribution is approximately normal, indicating a balanced spread of ownership concentration levels. The accounting implications of this finding are significant, as firms with high ownership concentration may engage in earnings management practices, prioritize the interests of controlling shareholders over minority investors, or limit transparency in financial reporting. High ownership concentration can be beneficial in enforcing strategic decision-making, but it can also lead to agency conflicts where corporate governance structures are weak.

Table 2: Correlation Matrix

Correlation Probability	FV	ENV
ENV	-0.219494 0.0010	
OWNCO	-0.108210 0.1095	0.129801 0.0546

Source: Eviews Output, 2025

The correlation matrix in Table 2 provides insights into the relationship between firm value (FV), environmental sustainability reporting (ENV), and ownership concentration (OWNCO) among listed service companies in Nigeria. The correlation coefficients indicate the strength and direction of these relationships, while the probability values demonstrate their statistical significance. The correlation coefficient between firm value (FV) and environmental sustainability reporting (ENV) is -0.2195, with a p-value of 0.0010. This statistically significant negative correlation suggests that increased environmental sustainability reporting is associated with lower firm value. This finding has important accounting and financial implications as it may indicate that companies that engage in extensive sustainability disclosures incur additional costs that do not immediately translate into higher financial performance. This negative relationship may also be due to investor perceptions, as shareholders may view sustainability initiatives as an expense rather than an investment that generates future economic benefits. Furthermore, companies with weaker financial performance may adopt aggressive sustainability reporting strategies to enhance their corporate image, resulting in an inverse relationship between the two variables.

The correlation between share concentration (OWNCO) and firm value (FV) is -0.1082, with a p-value of 0.1095, indicating a weak, statistically insignificant negative correlation. This suggests that changes in ownership concentration have little direct impact on firm value in the companies studied. However, this weak, negative relationship may imply that firms with higher ownership concentration may experience agency conflicts, where controlling shareholders prioritize their personal interests over overall firm performance. From an accounting perspective, concentrated ownership structures can lead to earnings management, less transparent financial disclosures, and decreased investor confidence. However, the lack of statistical significance suggests that other factors, such as corporate governance mechanisms, financial policies, and market conditions, may moderate the relationship between ownership concentration and firm value.

The correlation between shareholder concentration (OWNCO) and environmental sustainability reporting (ENV) is 0.1298, with a p-value of 0.0546, indicating a weak, marginally significant positive association. This suggests that companies with higher ownership concentration tend to engage in more environmental sustainability reporting, which may be a strategic approach to managing stakeholder expectations and regulatory compliance. This weak positive relationship may be due to controlling shareholders becoming increasingly aware of the long-term benefits of sustainability reporting, particularly in terms of improving corporate reputation, reducing regulatory risk, and attracting ethical investors. However, the marginal significance level implies that ownership concentration alone does not strongly determine a company's sustainability reporting practices; other corporate governance mechanisms, industry regulations, and company-specific factors may play a more influential role.

Table 3: Regression Analysis

Dependent Variable: FV
Method: Panel Generalized Method of Moments Transformation: First Differences

Variable	Coefficient	Std. Error		t-Statistic	Prob.
FV(-1)	0.191200	0.058569		3.264513	0.0037
ENV	0.195028	0.055098		3.539678	0.0019
OWNCO	0.125313	0.028737		4.360611	0.0003
ENV_OWNCO	-0.348912	0.094565	-3.689670	0.0014	
Root MSE	0.059731	Mean dependent var			-0.000406
S.D. dependent var	0.053620	S.E. of regression			0.060422
Sum squared resid	0.627941	J-statistic			16.69819
Instrument rank	22	Prob(J-statistic)			0.543939

Source: Eviews Output, 2025

The regression results in Table 3 provide empirical evidence of the moderating effect of ownership concentration on the relationship between environmental sustainability reporting and firm value for listed service companies in Nigeria. The model is estimated using the panel generalized method of moments (GMM), which accounts for endogeneity and provides an efficient estimation. The lagged firm value coefficient (FV(-1)) is 0.1912, with a statistically significant p-value of 0.0037, indicating that past firm value has a positive impact on current firm value. This result is consistent with previous studies (Asiri & Hameed, 2022; Olayemi & Adebayo, 2023) that show that companies with strong past financial performance are more likely to maintain profitability with stable investment strategies and retained earnings. From an accounting perspective, this means that companies with consistent profitability trends can maintain a positive investor perception and increase shareholder wealth.

The coefficient for environmental sustainability is 0.1950, with a significant t-statistic of 3.54 and a p-value of 0.0019, indicating that environmental sustainability reporting has a strong positive impact on firm value. This finding is consistent with the resource-based view (RBV) theory, which states that firms that invest in sustainability create a competitive advantage by enhancing reputation and reducing risk (Barney, 1991). Recent empirical studies (Amino and Noso, 2022; Jiapong et al., 2023) support this positive relationship, finding that firms that provide sustainability disclosures tend to attract socially responsible investors, increase customer loyalty, and reduce regulatory penalties. The accounting implications suggest the need to integrate sustainability reporting into financial statements, using globally accepted frameworks such as the Global Reporting Initiative (GRI) or International Financial Reporting Standards (IFRS), to improve transparency and comparability.

The OWNCO coefficient is 0.1253, and the p-value is 0.0003, which is statistically significant, indicating that higher ownership concentration has a positive impact on firm value. This result is consistent with agency theory (Jensen & Meckling, 1976), which claims that concentrated ownership can enable dominant shareholders to exercise more control over management decisions, thereby reducing agency conflicts. This result is consistent with previous studies (Ofoegbu & Okafor, 2021; Ibrahim & Sani, 2023), which found that firms with higher ownership concentration enjoy better financial performance due to stricter monitoring of managerial behavior. However, excessive ownership concentration may lead to a defensive effect, whereby large shareholders place their personal interests above those of minority shareholders. From an accounting perspective, companies with concentrated shareholding structures should work to strengthen corporate governance mechanisms such as independent board oversight to balance the interests of various stakeholders.

The interaction coefficient between the ENV*OWNCO terms is -0.3489, with a highly significant t-statistic of -3.69 and a p-value of 0.0014, indicating that ownership concentration has a negative moderating effect on the relationship between environmental sustainability reporting and firm value. This suggests that while sustainability reporting can increase firm value, the effect is weak for firms with higher ownership concentration. One possible explanation is that controlling shareholders may focus on short-term profitability rather than long-term sustainable investment, resulting in a weaker association between environmental disclosure and firm value (Adegbite et al., 2022). This is consistent with the findings of Lee and Su (2023), who observed that firms with concentrated ownership tend to report sustainability symbolically without making substantive commitments to actual environmental measures. The accounting implication of this finding is that regulators should impose stricter guidelines on sustainability reporting to ensure that disclosures are meaningful rather than merely compliant.

The model diagnostics showed a root mean square error (MSE) of 0.0597, indicating a good fit. The J-statistic is 16.698 and the p-value is 0.5439, confirming that the instruments used in the GMM estimation are valid and not over-identified. The low standard error of the regression (0.0604) further supports the robustness of the model. The results show that environmental sustainability reporting increases firm value, but this effect diminishes in firms with higher ownership concentration. These findings have important implications for corporate governance, regulatory policy, and accounting practices. Regulators such as the Nigerian Financial Reporting Council and the Securities and Exchange Commission should strengthen their sustainability reporting frameworks and ensure that ownership concentration does not impair transparency. From an accounting perspective, companies should adopt internationally recognized sustainability reporting standards to enhance comparability and investor confidence.

Conclusion and Recommendations

This study examines the moderating effect of ownership concentration on the relationship between environmental sustainability reporting and firm value among listed service companies in Nigeria. The results provide strong empirical evidence that environmental sustainability reporting has a positive impact on firm value, showing that companies that disclose sustainability measures tend to enjoy greater investor trust, improved reputation, and long-term financial stability. However, ownership concentration is found to negatively moderate this relationship, suggesting that in highly concentrated companies, controlling shareholders may prioritize short-term financial gains over sustainable business practices.

Regulatory bodies such as the Financial Reporting Council of Nigeria (FRCN) and the Securities and Exchange Commission (SEC) should enforce mandatory sustainability reporting guidelines aligned with global frameworks such as the Global Reporting Initiative (GRI) and the International Financial Reporting Standards (IFRS). This would enhance the credibility of sustainability disclosures and ensure comparability across firms.

Firms with high ownership concentration should implement robust governance mechanisms to prevent excessive control by dominant shareholders. This includes appointing independent board members, strengthening audit committees, and promoting transparency in decision-making. These measures can mitigate the entrenchment effects of controlling shareholders and ensure that sustainability practices align with long-term corporate objectives.

Institutional investors, such as pension funds and mutual funds, should be encouraged to participate in firms with high ownership concentration. Their presence can provide additional oversight and ensure that sustainability initiatives are not compromised by short-term financial interests. Policymakers should create incentives for institutional investors to engage in firms' corporate governance structures.

Accounting professionals should integrate sustainability metrics into financial statements to reflect the financial implications of environmental initiatives. This could be achieved through the adoption of Environmental, Social, and Governance (ESG) disclosures in annual reports, allowing investors to make informed decisions based on sustainability performance.

Corporate executives, investors, and regulatory bodies should receive training on the importance of sustainability reporting and corporate governance. Awareness programs and workshops should be organized to educate stakeholders on best practices for integrating sustainability into business operations and financial decision-making.

The Nigerian government should introduce incentives such as tax benefits, subsidies, or recognition awards for firms that actively engage in sustainability initiatives. These incentives can encourage firms to go beyond compliance and adopt meaningful sustainability strategies that contribute to long-term value creation.

References

Abdulfatah, M., Yusuf, A., & Ibrahim, S. (2021). Corporate sustainability reporting and firm value: Evidence from emerging economies. *Journal of Finance and Accounting, 18*(2), 45-60.

Adegbite, E., Amaeshi, K., & Nakpodia, F. (2022). Corporate governance and sustainability reporting in sub-Saharan Africa: A stakeholder perspective. *African Journal of Business and Economics, 24*(3), 78-95.

Adeyemi, S. B., & Fapohunda, O. (2023). Ownership structure and corporate environmental disclosure in Nigeria. *Journal of Accounting and Finance, 27*(1), 120-138.

Agyemang-Mintah, P., & Schadewitz, H. (2017). Audit committee adoption and firm value: Evidence from UK financial institutions. *International Journal of Accounting & Information Management, 25*(3), 102-121.

Ahmed, M., & Hamid, R. (2022). The influence of corporate governance on environmental reporting practices: A comparative study. *Sustainability Accounting Review, 29*(4), 233-256.

Al-Jaifi, H. A. (2017). The impact of corporate governance mechanisms on real and accrual earnings management: Evidence from Gulf Cooperation Council countries. *Journal of Financial Reporting & Accounting, 15*(2), 222-246.

Almaqoushi, W., & Powell, R. (2017). The role of institutional investors in corporate sustainability practices. *Journal of Economic and Business Studies, 32*(2), 78-92.

Alvarado, J. C., & González, M. (2021). Sustainability reporting and financial performance: A meta-analysis approach. *Journal of Corporate Finance, 39*(1), 120-145.

Aminu, M., & Nwosu, J. (2022). Environmental, social, and governance (ESG) reporting and firm value in Africa. *African Journal of Business Ethics, 28*(2), 135-152.

Asiri, Y., & Hameed, T. (2022). Corporate governance and environmental performance: An emerging market perspective. *Journal of Sustainability and Business Research, 19*(3), 67-89.

Chang, J., & Park, S. (2022). Board independence and sustainability reporting: A global perspective. *Journal of Business Ethics, 178*(1), 200-220.

Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2008). Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis. *Accounting, Organizations and Society, 33*(4-5), 303-327.

Damodaran, A. (2002). *Investment valuation: Tools and techniques for determining the value of any asset* (2nd ed.). Wiley.

Endri, E. (2019). *Corporate governance and sustainability: A review of the literature.* Journal of Business Research, 64(5), 45-62.

Fama, E. F., & French, K. R. (1992). The cross-section of expected stock returns. *Journal of Finance, 47*(2), 427-465.

Freeman, E. (1984). *Strategic management: A stakeholder approach.* Pitman.

García-Sánchez, I. M., Rodríguez-Ariza, L., & Frías-Aceituno, J. V. (2019). The role of the board of directors in environmental sustainability disclosure. *Corporate Social Responsibility and Environmental Management, 26*(2), 403-414.

Global Reporting Initiative (GRI). (2016). *GRI sustainability reporting standards.* GRI.

Global Reporting Initiative (GRI). (2023). *Global sustainability reporting standards: The next steps.* GRI.

Gray, R., Owen, D., & Adams, C. (1996). *Accounting and accountability: Changes and challenges in corporate social and environmental reporting.* Prentice Hall.

Gyapong, A., Munteanu, A., & Ghazanfar, M. (2023). Corporate sustainability reporting and firm performance: Evidence from emerging markets. *International Journal of Accounting and Finance, 41*(3), 258-278.

Harrison, J., & Lee, K. (2020). Corporate governance, environmental sustainability, and firm performance: An empirical analysis. *Business Ethics Quarterly, 30*(4), 483-512.

Hummel, K., & Schlick, C. (2021). The relationship between sustainability reporting and firm value: A global perspective. *Journal of Business Ethics, 163*(1), 159-182.

Hussain, N., Rigoni, U., & Orij, R. (2018). The impact of sustainability reporting on corporate financial performance: Evidence from Europe. *Sustainability Accounting, Management and Policy Journal, 9*(4), 463-486.

Ibrahim, M., & Sani, S. (2023). The role of corporate governance in environmental sustainability disclosure in Nigerian firms. *Journal of Financial Reporting and Accounting, 21*(1), 12-32.

James, L., & Richards, M. (2021). Ownership structure and sustainability performance: A study of US-based firms. *Journal of Corporate Finance, 65*, 101732.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics, 3*(4), 305-360.

Kolk, A. (2008). Sustainability, accountability, and corporate governance: Exploring the links. *Corporate Governance: An International Review, 16*(5), 469-486.

Kumar, R., & Desai, V. (2020). Corporate governance and sustainability reporting in India: An empirical study. *Journal of Business Ethics, 162*(1), 121-139.

Lee, C., & Suh, Y. (2023). The impact of environmental, social, and governance practices on firm value: Evidence from South Korea. *Sustainability, 15*(5), 1320.

Lee, J., & Lee, J. (2021). The role of ownership structure in sustainability performance: Evidence from Asian firms. *Corporate Governance: The International Journal of Business in Society, 21*(3), 468-485.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance, and the theory of investment. *American Economic Review, 48*(3), 261-297.

Ngwakwe, C. (2022). Corporate governance and environmental sustainability in Nigeria: The impact of board composition. *Sustainability, 14*(5), 1186.

Ofoegbu, G. A., & Okafor, F. (2021). The nexus between environmental sustainability reporting and corporate performance: Evidence from Nigerian firms. *Journal of Accounting and Business Studies, 5*(3), 190-210.

Oladipo, S. O., Akinmoladun, A. M., & Olayiwola, S. A. (2023). Corporate social responsibility and environmental sustainability: A study of Nigerian listed companies.

International Journal of Corporate Social Responsibility, 8(1), 1-15.

Olayemi, T., & Adebayo, K. (2023). Sustainability disclosure and financial performance of listed companies in Nigeria: A dynamic panel data approach. *Accounting Research Journal, 30*(2), 190-215.

Rappaport, A. (1986). *Creating shareholder value: The new standard for business performance.* Free Press.

Rivera, M., & Vega, R. (2022). Sustainability reporting and firm value: Evidence from European companies. *Sustainability Accounting, Management and Policy Journal, 13*(2), 233-250.

Ross, S. A., Westerfield, R., & Jaffe, J. (2016). *Corporate finance: Core principles and applications* (12th ed.). McGraw-Hill.

Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review, 20*(3), 571-610.

Uchenna, S., & Adegbite, E. (2021). Environmental sustainability and firm value: The role of ownership structure in Nigeria. *Business Strategy and the Environment, 30*(6), 31253141.

Uwuigbe, U., & Jimoh, R. (2012). Corporate social responsibility and financial performance: Evidence from Nigerian banks. *African Journal of Business Management, 6*(31), 9363-9371.

Wang, Z., & Xu, L. (2020). Corporate governance, sustainability reporting, and firm performance in China. *Asian Business & Management, 19*(4), 225-246.

Zhang, J., Liu, X., & Tan, M. (2016). Ownership structure, corporate governance, and environmental performance: Evidence from China. *Journal of Business Research, 69*(9), 3445-3452.

Zubair, M. (2016). Corporate governance and financial performance: The moderating role of corporate social responsibility. *International Journal of Corporate Governance, 7*(2), 101-113.