Journal of Accounting and Financial Management E-ISSN 2504-8856 P-ISSN 2695-2211
Vol 10. No. 12 2024 www.iiardjournals.org Online Version

Moderating Role of Environmental Sustainability Reporting on Effect of Managerial and Concentrated Ownership on Financial Performance of Listed Non-Financial Companies in Nigeria

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DOI: 10.56201/jafm.v10.no12.2024.pg203.220

Abstract

This study examined the effect of managerial and concentrated ownership on the financial performance of listed non-financial companies in Nigeria using ex-post facto research design. Utilizing a sample of 61 companies selected from various sub-sectors out of the 107 listed non-financial companies as at December 31, 2022, the study collected secondary data from annual reports and accounts of the sampled companies spanning from 2011 to 2023. The analysis employed descriptive statistics, inferential statistics, and multiple regression techniques to assess the relationships among the variables. The study variables included Return on Assets as the dependent variable, Managerial Ownership and Concentrated Ownership as independent variables, Environmental Sustainability Reporting as moderating variable, and Company Size control variable. The study revealed that concentrated ownership have significant effect on financial performance of the sampled listed non-financial companies in Nigeria. However, findings indicate that managerial ownership has insignificant effect on financial performance. Furthermore, environmental sustainability reporting is found to have an insignificant moderating role in the relationships between ownership structures and financial performance. Therefore, the study recommends that non-financial companies should encourage and attract more block investors as their presence can enhance monitoring of management and improve financial performance. Additionally, regulatory authorities should make sustainability reporting mandatory in Nigeria to improve transparency, trust and accountability.

Keywords: *Environmental Sustainability Reporting, Managerial Ownership, Concentrated Ownership, Financial Performance, Non-Financial Companies*

1. Introduction

Corporate financial performance is a critical measure of firm success and serves as the pivot around which a company's expertise in resource allocation, revenue creation, and overall effectiveness revolves. Corporations are constantly driven to calibrate their financial performance in the midst of a dynamic and fiercely competitive business environment because they are keenly aware that it serves as the compass for their ability to generate returns for shareholders and a variety of stakeholders. According to Andow and David (2016), the continuous patronage of any business by interested and relevant parties is dependent on financial performance. Poor financial performance could result to low business patronage and vice versa.

The factors that affect a company's financial performance are complex and varied. The financial performance of businesses is now closely linked to how they are owned, as owners play a crucial role in funding their operations. Companies are primarily responsible for delivering profits to their owners, this duty is of utmost importance, as a company's ability to make profit in a competitive and complex market greatly impacts its long-term viability (Orbunde et al., 2021). Consequently, ownership structure is a vital aspect of corporate governance and business prosperity. It serves as an internal corporate governance tool that has a substantial impact on the achievement of a company's objectives and goals in a cost-effective manner (Abosede & Kajola, 2011).

Corporate ownership structures have long been subjects of rigorous academic inquiry and debate. The Nigerian corporate landscape, like many emerging markets, is characterized by a unique blend of managerial and concentrated ownership structures. While managerial ownership represents ownership stakes held by top executives and management teams, concentrated ownership typically refers to significant equity holdings by a few dominant shareholders or families. These ownership structures have profound implications for corporate decision-making, risk-taking behavior, and ultimately, financial performance outcomes (Onuora et al., 2022).

Managerial ownership is often associated with enhanced firm performance due to the alignment of managerial interests with those of shareholders. However, it can also give rise to agency problems when managers prioritize their interests at the expense of shareholders. In contrast, concentrated ownership can exert both positive and negative influences. On one hand, it can enhance monitoring and corporate governance, fostering long-term strategic decision-making. On the other hand, it may concentrate power and reduce transparency, potentially leading to conflicts of interest.

Amidst these complexities, the role of environmental sustainability reporting has emerged as a critical dimension in assessing corporate performance. As global concerns about climate change, resource depletion, and social responsibility intensify, companies are increasingly compelled to disclose their environmental sustainability initiatives and performance metrics. These disclosures serve not only as signals of a firm's commitment to sustainability but also as mechanisms to attract ethical investors and mitigate reputational risks (Alhassan, 2018).

Across the African continent, Nigeria stands as a vibrant and rapidly evolving economy, home to a burgeoning stock exchange and a diverse array of listed companies. However, non-financial companies which constitute the highest proportion of listed firms in Nigeria have been faced with myriad of challenges ranging from corporate failures, harsh operating environment and governance related issues. As Nigeria strives to strengthen its position in the global economic landscape, it becomes imperative to scrutinize the factors that influence the financial performance of its corporate entities, especially in the context of managerial and concentrated ownership, and the moderating role played by environmental sustainability reporting.

Furthermore, several studies have examined the effect of managerial and concentrated ownership on financial performance both within and outside the country, with majority of these studies focusing on the financial sector, such as Gugong and Hussaini (2015); Okafor et al. (2016); Ozili and Olayinka (2017); Ohiani et al. (2018); Muhammad et al. (2019); Fahmi et al. (2019); Samarawickrama et al. (2021); Atanda et al. (2021). While the few studies conducted on the non-financial sector were limited to sub-sectors (industrial goods, oil and gas, cement companies, building materials) such as Arshad and Javid (2014); Nnamani et al. (2017); Ezeokafor and Amahalu (2019); Ajao and Ejokehuma (2020); Umar et al. (2021); Onyebuenyi and Ofoegbu (2022). Hence, there is a dearth of empirical research that examines the effect of managerial and concentrated ownership on financial performance of listed non-financial companies in Nigeria. Furthermore, the moderating role of sustainability reporting in this relationship has received less attention. Addressing this research gap is crucial for offering valuable perspectives to policymakers, investors, and corporate leaders aiming to improve ownership structures and boost financial performance within Nigeria's non-financial sector. Therefore, this study examines the moderating role of environmental sustainability reporting on effect of managerial and concentrated ownership on financial performance of listed non-financial companies in Nigeria.

In order to achieve this objective, the following null hypotheses are formulated and tested:

Ho_1: Managerial ownership does not have significant effect on financial performance of listed non-financial companies in Nigeria

Ho_2: There is no significant effect of concentrated ownership on financial performance of listed non-financial companies in Nigeria

Ho_3: Environmental sustainability reporting does not have significant effect on financial performance of listed non-financial companies in Nigeria

Ho_4: Environmental sustainability reporting does not have significant moderating role on the effect of managerial ownership on financial performance of listed non-financial companies in Nigeria

Ho_5: Environmental sustainability reporting does not have significant moderating role on the effect of concentrated ownership on financial performance of listed non-financial companies in Nigeria

The outcome of the study could guide policymakers like the Nigerian Exchange Group, the Securities and Exchange Commission, the government, and shareholders in creating policies that enhance corporate governance in the non-financial sector. It may help investors monitor firms' activities to ensure sustainability, profitability, and growth. Additionally, the research could be of importance for both theory and practice by addressing the agency conflict between owners and managers, identifying ownership structures that foster collaboration for the firm's benefit. It may also assist companies in evaluating the impact of different ownership categories on financial performance and encourage sustainability practices for stakeholders' benefit. Lastly, the study serves as a valuable resource for academics and researchers, contributing to knowledge and literature by providing empirical evidence on the effect of ownership structure on the corporate performance of listed non-financial companies in Nigeria, with environmental sustainability reporting as a moderator.

2. Literature Review

Conceptual Review

Financial performance is a crucial aspect of a company's overall performance, assessing its ability to utilize assets effectively for profit generation during a specific period. Okewale et al. (2020) noted that defining financial performance universally is challenging due to its multifaceted nature, but it can generally be seen as the monetary evaluation of a company's outcomes resulting from its policies and strategies. It is the measurement of returns or revenue compared to predetermined standards and targets, reflecting the results of management decisions and actions that impact a firm's success and sustainability (Hermuninsih et al., 2020).

Various metrics exist to evaluate financial performance, but this study focuses on Return on Assets (ROA). According to Omohefe and Edirim (2020), ROA is an accounting-based measure that assesses a firm's short-term performance by connecting net profit and total assets. It offers insights into the returns generated from capital investments, reflecting the efficiency of asset utilization. ROA also quantifies the profit generated per unit of invested currency and serves as a comprehensive measure of ownership structure's impact on financial performance. Ajao and Ejokehuma (2020) opine that ROA emerges as a top-tier gauge of financial performance that seamlessly links operational outcomes with the resources employed to achieve them. Return on Assets distinguishes itself as the most suitable measure for scrutinizing the impact of ownership structure. Its capacity to encapsulate both profitability and asset utilization efficiency ensures a comprehensive assessment of how ownership structure, with specific emphasis on managerial and concentrated ownership shapes a company's financial performance.

Managerial ownership is one of the components of ownership structure which represents the portion of company stock held by managers or executive directors. As articulated by Ayman and Mohammed (2022), it serves as a corporate governance mechanism designed to incentivize managers to conduct themselves fairly and responsibly in their management of the company. Bouras and Gallali (2017) offer a similar definition, defining managerial ownership as the fraction of equity held by company managers relative to the total shares outstanding. This ownership by managers serves as a catalyst for diligent decision-making and actions aimed at enhancing corporate performance. It also empowers managers to actively engage in shaping the company's strategic direction, thereby aligning their interests with those of the shareholders. It incentivizes responsible management and alignment of managers' interests with those of shareholders. However, it's essential to acknowledge that, as proposed by Morck et al. (1988) managerial ownership can lead to an entrenchment effect, where managers prioritize personal gain over the firm's benefit and resist external oversight.

On the other hand, ownership concentration, or block-shareholding, involves a select few shareholders possessing a substantial portion of a company's shares, granting them significant control over the firm. Such concentrated shareholders wield significant control over the company by virtue of their block holdings. These block holders typically hold more than a 5% equity stake in the company (Zhang & Kyaw, 2017). According to Samarawickrama et al. (2021), while this concentration can reduce agency costs and align management with shareholder interests, it can also marginalize minority shareholders and lead to agency conflicts.

Sustainability reporting has gained importance in the business world, driven by growing awareness of sustainability practices and stakeholder demands for transparency and responsibility. As the business landscape becomes increasingly interconnected with society and the environment, sustainability reporting allows companies to disclose economic, social, and environmental performance to stakeholders. Environmental sustainability, the focus of this study, is crucial, as neglecting environmental concerns can harm both the firm and society. Environmentally responsible companies garner support from consumers, investors, and other stakeholders. Environmental sustainability reporting, also known as green accounting, entails communicating environmental issues and actions taken to address them, showcasing a commitment to environmental responsibility and sustainable development goals (Mikial et al., 2019).

According to Alhassan and Basariah (2016), the purpose of environmental sustainability reporting is to promote transparency, responsibility, and accountability by disclosing both financial and non-financial data related to the impact of a company's operations on the environment and the local community. It is a means to demonstrate a company's ability to uphold environmental standards, address contemporary environmental challenges, and respect stakeholders' concerns, enhancing environmental performance in the process. Overall, the significance of sustainability reporting is on the rise, urging businesses and policymakers to prioritize sustainability initiatives to meet societal expectations and gain a competitive edge.

Theoretical Review

This study is anchored on Resource Dependency Theory which was introduced by Pfeffer and Salancik in 1978. The theory explores how a firm's behavior and performance are influenced by its acquisition of resources, particularly from external sources. It emphasizes that businesses engage in transactions with external individuals and institutions to secure resources like capital. This acquisition of external resources forms the basis for power and can provide competitive advantages to firms. It also empowers resource providers, such as shareholders, who contribute financial resources based on their ownership rights (Institute of Chartered Accountants of Nigeria, 2021). According to Alkurdi et al. (2021), the structure of a firm's ownership, often determined by the board, plays a critical role in either reducing reliance on external resources or facilitating their acquisition. This, in turn, affects governance, decisions, policies, and financial performance. Ownership structure offers access to both financial and non-financial resources, which are essential for a firm's sustainability and profitability. This theory underscores the significance of firm equity and investor expertise in influencing firm performance by providing the necessary resources for growth and success.

This theory is appropriate for this study because the way a company is owned is shaped by the resources provided by individuals and organizations. These resources are crucial for the company's growth and success, and they can also influence how well the company performs.

Review of Empirical Studies

Managerial Ownership and Financial Performance

In Mohammed et al.'s (2012) study, they investigated the impact of managerial ownership on the performance, market value, and risk of 123 banks listed on the STOXX Global Index across 23 countries in 2007 and 2010. Secondary data was collected from Bloomberg and Bankscope for these banks in highly developed markets in America, Europe, and Asia/Pacific. The study employed ordinary least square regression for data analysis and found a positive association between managerial ownership and both performance and market value, while revealing a negative correlation with bank risk. However, the study focused on the banking sector in developed markets, leading the current study to concentrate on the non-financial sector in Nigeria. Additionally, a longer 12-year timeframe will be employed to bolster result reliability and address temporal limitations.

Similarly, in Roffia's (2020) study of small and medium-sized enterprises (SMEs) in Northeast Italy spanning from 2014 to 2017, the focus was on exploring the link between director ownership and financial performance. Data encompassing ownership, director structures, and financial performance were gathered from 214 SMEs in Verona and Vicenza provinces, Italy. The study unearthed a significant relationship between director ownership and ROA, characterized by a nonlinear, S-shaped curve. However, the study's use of a four-year timeframe and Likert scale (1-5) for evaluating director ownership may restrict the generalizability and precision of the results.

However, in a study conducted by Sani (2020) focusing on listed Nigerian firms and the moderating role of board independence, a negative relationship was discovered between managerial ownership and financial performance. The study utilized panel data from 71 sampled companies spanning 2012 to 2018 which were analyzed using the generalized method of moment estimator. The results not only revealed a strong inverse correlation between managerial ownership and firm financial performance but also highlighted the influence of board independence on the relationship between managerial ownership and company performance. It was found that companies with a significant number of independent directors on their boards could mitigate the entrenchment behavior associated with higher managerial shareholding. However, it's worth noting that the study has a time gap. Furthermore, the present study introduces environmental sustainability reporting as a moderator, recognizing its increasing relevance in the modern business landscape.

Concentrated Ownership and Financial Performance

Several studies have also been conducted on the relationship between ownership concentration and financial performance. For instance, Pahwa et al. (2019) undertook a study in India to explore the impact of ownership concentration by family members on financial performance. Their research encompassed a sample of 375 listed firms, drawn from a population of 500, and involved the analysis of secondary data from the Bombay Stock Exchange spanning 2016 to 2018. Utilizing descriptive statistics and multiple ordinary least square regression methods, findings revealed a U-shaped relationship between ownership concentration and firm performance in India: up to a concentration limit of 55%, financial performance increased with ownership concentration, but beyond this threshold, financial performance declined. While these insights are valuable, it's important to acknowledge that the study was conducted in India, highlighting the need for a similar investigation in the context of Nigeria. Additionally, the study's limited three-year timeframe may warrant a longer duration for more robust results.

In a study conducted by Abubakar et al. (2019) focusing on listed building materials firms in Nigeria from 2004 to 2017, the researchers explored the relationship between ownership concentration and financial performance, drawing from shareholders theory, agency theory, and opportunistic theory. They examined four cement companies selected from a population of six listed on the Nigerian stock exchange, employing panel data analysis and various statistical methods including SPSS, multiple regressions, Pearson correlation, and t-tests. The study revealed a positive and significant impact of ownership concentration on the financial performance of building materials companies in Nigeria during the studied period. Nevertheless, it's essential to note that the study's scope was limited to four cement companies, whereas the current study encompasses the entire non-financial sector in Nigeria, aiming to yield more comprehensive and robust results.

Parveen and Siddique (2014) conducted a study in Pakistan's banking sector from 2005 to 2009, aiming to assess the impact of ownership concentration and ownership mix on firm performance, drawing on agency theory. They collected secondary data from the annual reports of 14 sampled banks in Pakistan and employed the generalized least square technique for analysis while using cross-sectional weights to address heteroscedasticity. Their findings revealed a negative relationship between concentrated ownership and banks' financial performance during the study period, suggesting that as ownership concentration increased, banks' financial performance decreased proportionally. However, it's essential to recognize that this study was conducted in Pakistan, while the current research focuses on Nigeria's non-financial sector and spans a longer period of 12 years, aiming to provide a more comprehensive and extended perspective.

Environmental Sustainability Reporting and Financial Performance

Similarly studies have been conducted on the relationship between environmental sustainability reporting and financial performance. Dhar and Chowdhury (2021) conducted a study in Bangladesh's banking sector from 2012 to 2016, investigating the impact of environmental accounting reporting practices on financial performance using panel data from the annual reports of 25 selected listed banks, out of a population of 30. The study employed pooled ordinary least square regression along with correlation and standard deviation for data analysis. The study revealed a significant positive relationship between environmental reporting and financial performance, suggesting that banks engaging in environmental reporting tended to achieve better financial results. However, it's important to note that this research was limited to the banking sector in Bangladesh and covered the period from 2012 to 2016. Consequently, there is a need for a similar study in Nigeria, focusing on the non-financial sector and spanning the years from 2011 to 2022, to address both the domain and time gap.

In the same vein, Onyebuenyi and Ofoegbu (2022) conducted a study examining the relationship between environmental sustainability disclosure and the financial performance of listed oil and gas firms in Sub-Saharan Africa, specifically in Nigeria, Namibia, and Kenya, covering the period from 2011 to 2019. Their research employed a descriptive and ex-post facto research design, utilizing secondary data collected from 15 selected listed oil and gas companies across the three countries. Sample selection employed judgmental sampling, with 8 firms from Nigeria, 3 from Kenya, and 4 from Namibia. The study's findings indicated a significant impact of environmental sustainability disclosure on the financial performance of the sampled oil and gas companies in Sub-Saharan Africa. However, the study noted that incorporating a moderating or mediating variable could potentially yield different results, suggesting avenues for future research.

Ndukwe and Nwakanma (2017) conducted a similar study in Nigeria, examining the connection between corporate sustainability reporting and firm profitability among selected listed companies. Their research employed an ex-post facto research design and utilized secondary data sourced from the annual reports of 34 sampled listed firms spanning 2011 to 2015. The study revealed a negative relationship between environmental sustainability reporting and firm profitability. However, it's important to note that the study covered a seven-year timeframe, potentially rendering its findings outdated and less applicable for contemporary decision-making.

3. Methodology

This study employs ex-post facto research design to examine the effect of managerial and concentrated ownership on the financial performance of listed non-financial companies in Nigeria. This design is apt particularly as it focuses on events that have already occurred and are beyond the researcher's manipulation. The population consist of all 107 listed non-financial companies in Nigeria as at December 31, 2023. A sample size of 61 companies was determined using a stratified random sampling technique. Non-financial companies were divided into sub-sectors and proportionately selected to ensure that each stratum within the population had an equal chance of representation in the sample, according to their sizes. Additionally, companies within each stratum were chosen through a simple random method. This sampling technique is appropriate for the study as it yields a sample representative of the entire population and accurately reflects the study domain. The formula bellow was used to determine the sample size of each stratum of the population:

$nh = (N_h/N) \times N$

Where nh= the sample size for stratum h; N_h= the population size for stratum h; N= total population size; and n= total sample size

A total of 46 companies were excluded due to delisting, incomplete annual reports for the study period, or not being listed before the end of 2011. The complete list of sampled companies is provided in Appendix I. Secondary data was collected from the annual reports and accounts of these firms from 2011 to 2023, using content analysis and following the Global Reporting Initiative (GRI 2021) guidelines for environmental sustainability data. Data analysis includes descriptive and inferential statistics, with multiple regression techniques utilized to assess the relationship that exists between the variables. STATA 18 statistical software was utilized for the analysis.

Model Specification

The study adapts the model used by Abdulfatah et al. (2021). The model is stated as follows:

$PERF= \beta_0 + \beta_1 MGO_{it} + \beta_2 INO_{it} + \beta_3 OCO_{it} + \beta_4 FRO_{it} + \beta_5 LV_{it} + \beta_6 LV_{it} + e_{it}$

The model is modified to suit the variables of the study and the regression analysis. A model that shows the moderating effect of environmental sustainability reporting was also developed. The modified model is specified bellow:

$$ROA = \beta_0 + \beta_1 MO_{it} + \beta_2 CO_{it} + \beta_3 ESR_{it} + \beta_4 CS_{it} + e_{it} \quad (1)$$

$$ROA = \beta_0 + \beta_1 MO_{it} + \beta_2 CO_{it} + \beta_3 MO_{it} * ESR_{it} + \beta_4 CO_{it} * ESR_{it} + \beta_5 CS_{it} + e_{it} \quad (2)$$

Where;

ROA = Return on assets; β_0 = Intercept; β_1-β_5 = Coefficients of independent variables; MO = Managerial ownership; CO = Concentrated ownership;

ESR = Environmental sustainability reporting; CS = Company Size; i = Observation; t = Year of observation; e = Stochastic error term or disturbance term

Variables Definition and Measurement

Table 1

Variables Definition, Measurement and Sources

Variable	Definition	Measurement	Sources
Ownership Structure (independent variables):			

Managerial ownership (MO)	The proportion of shares owned by management or directors within the firm	Number of shares held by executive directors and managers/total number of shares issued	Fadrul et al. (2021); Abdul et al. (2021); Falade et al. (2021)
Concentrated ownership (CO)	The proportion of shares owned by block holder with at least 5% of total shares	Number of shares held by shareholders with 5% or more/total number of company shares	Hossain et al. (2021); Ajao and Ejokehuma (2020); Oyedokun et al. (2020)
Financial Performance (dependent variable):			
Return on assets (ROA)	It is a financial ratio that assesses how a firm efficiently uses its assets to generate profit.	Net profit/total assets	Abudulfatah et al. (2021); Murtaza et al. (2020); Sanjib (2019)
Moderating Variable:			
Environmental sustainability reporting (ESR)	It entails the communication of environmental performance by firms to relevant stakeholders	Total environmental disclosure index as per GRI guidelines/number of environmental disclosure index fulfilled by a company	Obiora (2022); Dhar and Chowdhury (2021); Umar et al. (2021); GRI (2021)
Control Variable:			
Company size (CS)	The natural log of total assets	Natural logarithm of annual total assets of the firm	Samarawickrama et al. (2021); Kajim (2020); Gugong and Hussaini (2015)

Source: Researcher's Compilation (2024)

4. Result and Discussion

Descriptive Statistics

Table 2 presents the descriptive statistics for the study's variables. This table provides an overview of the data utilized in the study, offering insights into key statistical measures such as the mean, standard deviation, minimum, and maximum values for the dependent variable (return on assets), the independent variables (managerial ownership, concentrated ownership), moderating variable (environmental sustainability reporting) and the control variable (company size).

Table 2

Descriptive Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
ROA	793	.2196267	.1430927	.012214	1.323137
MO	793	.0342057	.0817125	0	.5625422
CO	793	.1075043	.128947	0	.506149
ESR	793	.4837896	.2905578	0	1
CS	793	16.76171	2.409607	8.459564	23.92799

Source: STATA Output 2024

As presented in Table 2, the average Return on Assets (ROA) for non-financial companies in Nigeria is 0.2196. This indicates that, on average, these companies had a ROA of approximately 21.96%. However, there is significant variability in ROA within the sample, with the lowest recorded ROA being 0.0122 and the highest being 1.3231. Similarly, the mean of Managerial Ownership (MO) is 0.0342, suggesting that, on average, managers hold approximately 3.42% of non-financial companies' shares. The range of MO varies from a minimum of 0% to a maximum of 0.5625%, indicating variations in managerial ownership. In terms of Concentrated Ownership (CO), the data shows that the minimum value is 0, while the maximum is 0.5061, with a mean value of 0.1075. This suggests that, on average, 10.75% of non-financial companies are owned by concentrated shareholders, indicating a varying degree of ownership concentration within the sample. Lastly, the data on Environmental Sustainability Disclosure (ESR) reveals an average score of 0.4838, with a minimum of 0 and a maximum of 1. This implies that, on average, non-financial companies in Nigeria disclosed approximately 48.38% of their environmental sustainability practices during the period under review.

Results of Diagnostic Tests

Diagnostic tests were conducted to enhance the validity and reliability of the study which is presented in this section. The mean variance inflation factor (VIF) is approximately 1.07, which is slightly above 1 suggests that the overall multicollinearity in the model is relatively low. Furthermore, the Chi^2 probability of 0.0000 obtained from Breusch-Pagan test indicates the presence of panel effect in the data, thereby, necessitating the Hausman Specification Test due to the inability to interpret the ordinary least square regression result. The Hausman Specification Test revealed a significant Chi^2 probability of 0.0000, hence, the fixed effect model is appropriate for interpretation (Kamaluga, 2019).

Correlation Matrix

The correlation result which quantifies the degree of association or relationship between the dependent and independent variables is presented in Table 3.

Table 3

Correlation Matrix

Variable	ROA	MO	CO	ESR	CS
ROA	1.0000				
MO	0.0620	1.0000			
CO	-0.0652	0.1565	1.0000		
ESR	0.0996	-0.0166	-0.0862	1.0000	
CS	-0.0476	-0.0202	-0.0509	0.3155	1.0000

Source: STATA 18

The correlation matrix presented in Table 3 indicates a weak relationship among the study's variables, suggesting the absence of multicollinearity. Moreover, the results suggest that MO (Managerial Ownership) is positively correlated with ROA (Return on Assets) at 0.0620, suggesting that an increase in managerial ownership among non-financial companies in Nigeria is likely to lead to an increase in their return on assets. Similarly, environmental sustainability reporting (ESR) revealed a positive correlation with ROA, with a coefficient of 0.0996, indicating that an increase in environmental sustainability disclosure may lead to an increase in the return on assets of listed non-financial companies in Nigeria. However, the results revealed an inverse correlation between CO (Concentrated Ownership) and ROA, with a coefficient of -0.0652, indicating that an increase in concentrated ownership may lead to a decrease in the return on assets of listed non-financial companies in Nigeria during the study period. Furthermore, CS (Company Size) shows a weak negative correlation with ROA at -0.0476, implying that an increase in company size might slightly reduce the return on assets for these companies.

Table 4

Summary of Regression Output

Variables	Co-efficient	t-statistics	p-value	Cumulative results
MO	.1810633	1.10	0.271	
CO	.3513991	2.58	0.010	
ESR	.4132109	3.29	0.001	
CS	-.0487309	-6.16	0.000	
ESRMO	-.2522933	-1.15	0.249	
ESRCO	-.1954054	-1.46	0.144	
R^2				0.2560
Adjusted R^2				0.2060
Prob				0.0000

Source: STATA 18

The R^2 in Table 4 stands at 0.2560, indicating that approximately 25.60% of the variance in the dependent variable is explained by the independent variables in the model. The adjusted R^2 of 0.2060 suggests that approximately 20.60% of the variance is explained after adjusting for model complexity. Furthermore, the Prob (F-statistic) of 0.0000 indicates that the overall model is statistically significant at the 1% level.

The coefficient of 0.1810633, t-value of 1.10, and p-value of 0.271 suggest that the effect of managerial ownership on financial performance is positive but statistically insignificant. This implies that changes in managerial ownership of listed non-financial companies in Nigeria do not significantly influence financial performance. Hence, the null hypothesis, which states that managerial ownership does not have a significant effect on financial performance, is hereby accepted. This result substantiates the entrenchment effect of managerial ownership posited by Morck et al. (1988) which suggest that mangers could utilize information at their disposal for their personal gain, and they may also use their voting power to protect their position in the company. However, the finding could also be as a result of the low ownership stake by mangers of listed non-financial companies in Nigeria during the period under review. This finding is in line with studies of Dian and Dwi (2018); Saidu and Gidado (2018); Sandisiwe and Mabutho (2015).

Similarly, the coefficient of -0.0487309, t-value of -6.16, and p-value of 0.000 show that company size has a significant negative effect on financial performance. The negative coefficient implies that larger company sizes are associated with a decline in financial performance. This finding highlights the potential inefficiencies that larger firms might encounter.

However, the coefficient of 0.3513991, t-value of 2.58, and p-value of 0.010 indicate a positive and statistically significant effect of concentrated ownership on financial performance at the 5% level. This result suggests that an increase in concentrated ownership is associated with an improvement in financial performance. Consequently, the null hypothesis, which states that concentrated ownership does not significantly affect financial performance, is rejected. The finding aligns with the studies of Pahwa et al. (2019); and Abubakar et al. (2019).

In the same vein, the coefficient of 0.4132109, t-value of 3.29, and p-value of 0.001 indicate a significant positive effect of environmental sustainability reporting on financial performance at the 1% level. This implies that greater adherence to sustainability reporting practices positively influences financial outcomes. Hence, the null hypothesis, which states that ESR does not have a significant effect on financial performance, is rejected. This finding aligns with studies by Dhar and Chowdhury (2021); and Onyebuenyi and Ofoegbu (2022).

The moderating role of environmental sustainability reporting on the effect of managerial and concentrated ownership on financial performance of listed non-financial companies shows that ESRMO and ESRCO has coefficient of -0.2522933, -0.1954054 respectively with t-values of -1.15, -1.46 respectively and p-values of 0.249, 0.144 respectively which are both insignificant. Thus, the null hypotheses which states that environmental sustainability reporting does not have significant moderating effect on the relationship between managerial, concentrated ownership and financial performance of listed non-financial companies in Nigeria is hereby confirmed. This result shows that environmental sustainability reporting as a moderating variable is an insignificant factor in the financial performance of listed non-financial companies in Nigeria. However, this result could be different if sustainability reporting is made compulsory in Nigeria and the rate of compliance improves.

5. Conclusion and Recommendations

The main objective of this study was to examine the effect of managerial and concentrated ownership on the financial performance of listed non-financial companies in Nigeria with sustainability reporting as moderating variable from 2011 to 2023. The result of the multiple regression analysis revealed that environmental sustainability reporting has an insignificant moderating role in the relationship between managerial ownership and financial performance as well as concentrated ownership and financial performance of listed non-financial companies in Nigeria. Findings also revealed that managerial ownership has insignificant effect on financial performance. However, results revealed that concentrated ownership has significant positive effect on financial performance of listed non-financial companies in Nigeria.

From the foregoing, it is recommended that non-financial companies should encourage and attract more block investors as their presence can enhance monitoring of management and improve financial performance. Furthermore, balanced ownership structures should be encouraged by promoting policies that prevent excessive managerial ownership which can lead to entrenchment and misalignment of interests. Finally, regulatory authorities such as Securities and Exchange Commission and Nigerian Exchange Group should make sustainability reporting mandatory in Nigeria to enhance transparency, accountability and make listed companies more responsible in line with current trends and global best practices.

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