



Ownership Structure and Sustainability Reporting Disclosures of Listed Multinational Companies in Nigeria

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ABSTRACT

The disclosure of quality sustainability reporting information has become a global necessity because of the need to meet corporate stakeholders' financial and non-financial information needs for economic decision-making. The extant scholarly evidence has neglected the contributing role of ownership structure in the disclosure of sustainability information among multinational listed firms in Nigeria. Hence, this present study explores the effect of ownership structure on sustainability reporting disclosure of ten (10) purposively selected listed multinational firms in Nigeria spanning 2018-2022. The empirical analysis was undertaken using fully modified ordinary least square (FMOLS) and dynamic ordinary least square (DOLS) to analyze the secondary panel data obtained from annual reports of the listed firms. Findings revealed that managerial ownership, institutional ownership, foreign ownership and family ownership have positive significant effect on sustainability reporting disclosure, while government ownership showed a negative significant relationship with sustainability reporting disclosure. Also, findings revealed that the combined effect of all the variables are positively related with the sustainability reporting disclosure. The study recommended that government ownership of multinational companies should be discouraged by corporate stakeholders.

Keywords: Institutional Investors, Stakeholder Theory, Sustainability Reporting, Triple Bottom Line Reporting, Ownership Structure

JEL Classifications: Q56, M41, M14

1. INTRODUCTION

In today's global economy, economic, social, governance and environmental issues are critical, as organizations' performance are judged not only in terms of financial performance, but also long-term sustainability (Mahdi et al., 2023; Nuhu and Alam, 2024; Das et al., 2024). Sustainability reporting provides a platform for provision of information on environmental, economic, social, and governance performance to various stakeholders, unlike traditional reporting which provides information on only financial performance (De villiers and Sharma, 2020). Sustainability initiatives require integrating sustainable development objectives into the business's daily operations (Kumo, 2023). These objectives include encouraging social justice, raising economic effectiveness, and enhancing environmental performance.

Recently, regulators, corporate managers, institutional investors, and academic scholars have steadily focused their attention on the principles of corporate ownership structure and disclosures. This has necessitated prior studies on the extent to which corporate ownership affects sustainability disclosures in developed economies (Dienes et al., 2016; Thijssens et al., 2016; Elmagrhi et al., 2019). However, for emerging economies, prior empirical evidence on the effect of ownership structure on sustainability reporting disclosure has been scanty (Nuhu and Alam, 2024; Das et al., 2024). Few studies in Nigeria concentrated on the effect of corporate governance (board governance variables) on sustainability reporting disclosures. Also, the nexus between ownership structure and sustainability reporting disclosures has not been fully explored (Ololade and Adekanmi, 2019; Baba and Baba, 2021; Erin et al., 2022; Kumo et al., 2024). Besides, listed multinational firms are not the focus of the few studies despite

their social, economic, and environmental activities, which should be disclosed to guide both local and foreign investors in their economic decisions.

Moreso, prior empirical studies' findings in the developed and emerging economies on the relationship between ownership structure and sustainability reporting disclosures are mixed. For instance, the relationship between family ownership and sustainability reporting is found to be positive and significant (Esa and Zahari 2016; Lamb and Butler 2016; Sahasranamam et al., 2020). However, Abdullah et al. (2011) and El Ghouli et al. (2015) found a negative relationship between family ownership and sustainability reporting. Furthermore, institutional and managerial ownerships are found to be positively associated with sustainability reporting by (Kock et al., 2012; Lamb and Butler, 2016), while Esa and Zahari (2016), and Nor et al. (2017) found contrary results. This inconsistency in prior studies motivates the need to examine the nexus between ownership structure and sustainability reporting disclosure of listed multinational firms in Nigeria.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Ownership Structures and Sustainability Reporting

Ownership structure, in general, looks at the stakes that shareholders have in a company. Due to their sizable shareholdings, ownership has been seen as an essential component of effective control over a firm and a powerful structure of corporate governance that is utilized to impact social, ethical, and environmental issues (Alnabsha et al., 2018). According to Mahdi et al. (2023), the quality of sustainability reporting could be affected by the ownership structure of the organization. Hence, the ownership structure is thought to be the factor that determines how influence is distributed within an economic institution and the caliber of disclosure in sustainability reporting. Furthermore, Moses et al. (2020) assert that an organization's ownership structure has a critical and significant role in its success or failure.

The study is anchored on stakeholders, agency, and legitimacy theories. Corporate stakeholders are increasingly demanding sustainability information, most especially, institutional investors, whose investment guidelines are hinged on the availability of sustainable information. Whereas corporate managers may want to pursue their interests over other corporate stakeholders, ownership structures of firms have been identified as a means of reducing such agency costs and information asymmetry. Therefore, corporate managers are motivated to disclose corporate information on environmental, social, and governance to obtain legitimacy from all the stakeholders (Fuadah et al., 2022).

2.2. Managerial Ownership

Managerial ownership is the percentage of shares owned by management or the number of equities shares corporate managers hold to the total equity shares. According to Junias et al. (2020), management ownership plays a significant influence on the economic process of the company and can be utilized as a corporate

governance mechanism to enhance the disclosure of sustainability reporting. From the perspective of the stakeholders' theory, it is crucial to involve stakeholders, among them managerial stakeholders, to accomplish business objectives.

Previous research indicates that managerial ownership and sustainability reporting are positively and significantly correlated (Mahdi et al., 2023; Nuhu and Alam, 2024). These findings imply that a company's profitability and its incentive to publish sustainability information in its annual report increase with the number of shares held by Management. On the contrary, management ownership was found by Indy et al. (2022) to have no effect on the sustainability reporting disclosures of listed firms. Also, Hasan et al. (2021) found a negative effect of managerial ownership on sustainability reporting. Therefore, in view of these mixed results, we hypothesize that:

H_{01} = There is no significant effect of managerial ownership on sustainability reporting of listed multinational companies in Nigeria.

2.3. Institutional Ownership

The proportion of shares held by institutional investors, such as banks, insurance firms, and investment firms, is referred to as institutional ownership (Mujiani and Nadhifah, 2021). Institutional ownership has been viewed as a crucial element of effective control over a company and a potent structure of corporate governance that is used to manage social, ethical, and environmental issues because of their sizeable shareholdings (Alnabsha et al., 2018). Institutional investors are required to support the publication of sustainability reports as a corporate communication tool to stakeholders demonstrating the company's accountability for its business operations (Indy et al., 2022). There have been diverse results on the association of ownership structure and sustainability reporting. The studies of Shahab et al. (2022), and Mahdi et al. (2023), for example, found a positive effect of institutional ownership on sustainability reporting practices in Iraqi businesses. On the other hand, Indy et al. (2022), found that institutional ownership has no effect on sustainability reporting. Based on these mixed results as described above, the following hypothesis is developed:

H_{02} = There is no significant effect of institutional ownership on sustainability reporting disclosures of listed multinational companies in Nigeria.

2.4. Foreign Ownership

Foreign ownership is the existence of foreign investors holding a substantial portion of the equity holdings of corporate organisations. Prior studies of (Mahdi et al., 2023; Correa-Garcia et al., 2020; Nuhu and Alam, 2024) indicate a positive and significant effect of foreign ownership and sustainability reporting. However, the findings of Hasan et al. (2021) investigation of the connection between foreign ownership and sustainability reporting in Pakistani commercial banks showed that foreign ownership negatively influence the disclosure of sustainability information. Therefore, we hypothesize thus:

H_{03} = There is no significant effect of foreign ownership on sustainability reporting of listed multinational companies in Nigeria.

2.5. Government Ownership

In line with previous empirical studies, government ownership is defined as the government owning a significant percentage of the shares of an economic entity (Mahdi et al., 2023). Because government wants to use ownership to further social welfare and achieve political objectives, its involvement in business results in homogeneity of interests, more transparency, and a sharp decrease in information asymmetry (Aboudahr, 2022). Amidjaya and Widagdo (2020) examined the connection empirically between sustainability reporting and government ownership. Their findings point to a positive significant influence of government ownership on sustainability reporting. Doshi et al. (2024) also found a positive significant effect of government ownership on Economic, Social, and Governance disclosure scores of listed 500 companies in India. In contrast, Nguyen and Nguyen (2020), found that government ownership is not significantly linked to corporate social responsibility performance. Thus, the following hypothesis is formulated:

H_{04} = There is no significant relationship between government ownership and sustainability reporting of listed multinational companies in Nigeria.

2.6. Family Ownership

When one family controls the majority of shares and manages a certain economic unit such ownership is known as family ownership in literature (Mahdi et al., 2023). The positive point of this type of ownership is the ability of family members to supervise the performance of the management directly and monitor the actions of the economic unit. Negative aspects include, however, not diversifying the investment portfolio to reduce risk and prioritizing family interests over maximizing the economic unit's value (Anwar & Malik, 2020). According to (Amidjaya and Widagdo, 2020; Fuadah et al., 2022; Mahdi et al., 2023; Das et al., 2024), there is a positive significant effect of family ownership and sustainability reporting disclosure of firms. On the other hand, Qaderi et al. (2024) found a negative moderation effect of family ownership on the relationship between Audit committee effectiveness and integrated reporting quality. There are also mixed results on the effect of family ownership on sustainability information disclosure. We, therefore, hypothesize thus:

H_{05} = There is no significant relationship between family ownership and sustainability reporting of listed multinational companies in Nigeria.

3. METHODS

The population of this study consists of all the 15 listed multinational companies on Nigeria Exchange Group (NGX) for the period of 2018 and 2022. Ten (10) samples out of the listed 15 non-financial multinational companies were purposively selected based on availability of data. Secondary data was obtained from the published annual reports of the selected sample. The study investigated the relationship between ownership structures and sustainability reporting in Nigeria, employing the fully modified ordinary least square (FMOLS) technique created by Pedroni (1999; 2001) and the dynamic ordinary least square (DOLS) method put forward by Stock and Watson (1993) to validate the results obtained from the FMOLS approach. These methods are

recognized for being reliable estimators, accounting for potential endogeneity and serial correlation issues among the variables. Additionally, these approaches enable the consideration of multiple integration orders of variables.

The study used panel regression model to estimate the beta coefficients that are later used to test the hypothesis. The research model is shown below:

$$SRD_{it} = \beta_0 + \beta_1 MOWN_{it} + \beta_2 IOWN_{it} + \beta_3 FOWN_{it} + \beta_4 FAOWN_{it} + \beta_5 GOWN_{it} + \beta_6 FSIZE_{it} + \beta_7 LEV_{it} + \beta_8 ROA_{it} + \mu_{it}$$

SRD is the sustainability reporting disclosure index, which is obtained from the published annual sustainability reports of the ten (10) selected multinational companies. The content analysis of the reports was used to derive the sustainability reporting disclosure index. The disclosure of environmental, social, and economic information by the multinational companies in line with Global Reporting Initiatives (GRI, 2021) is scored 1 and otherwise 0. MOWN represents managerial ownership. It is the percentage of all directors' share ownership to total firm ordinary shares. IOWN denotes institutional ownership. It is measured by the percentage of shares held by institutional shareholders to total firm ordinary shares. FOWN is the foreign ownership. It is proxied by the percentage of shares held by foreigners to total firm ordinary shares. FAMWN represents family ownership and GOWN is government ownership. The former was measured by the ratio of shares owned by family members to total ordinary shares, while the latter is the ratio of shares owned by the government to the total ordinary shares. Three control variables are stated in the econometric model. They are firm size (FSIZE), Leverage (LEV), and Return on Assets (ROA). Firm size is measured by the natural logarithm of total assets, leverage by ratio of total liabilities to total assets, and return on assets by net income deflated by total assets.

4. RESULTS

4.1. Descriptive Statistics

Table 1 presents the descriptive and correlation matrix of the variables. The analysis indicates that sustainability reporting surged by an average of 0.521, with maximum and minimum values of 0.611 and 0.404, respectively. Similarly, the ownership structure indicators, including managerial ownership, institutional ownership, government ownership, foreign ownership, and family ownership, rise by an average of 6.496, 64.518, 1.080, and 54.242, respectively. This points out that the ownership concentration of the listed firms is increasing over time, particularly institutional ownership and foreign ownership during the period considered. Regarding the control variables, the averages of firm size, leverage, and returns on assets (ROA) are 18.670, 2.720, and 0.034, respectively. This underscores the high level of firm capacity with a moderate level of leverage and profitability during the period.

The standard deviation analysis reveals that institutional ownership and sustainability reporting exhibit the highest and lowest levels of volatility among the other variables. The skewness distribution indicates that managerial ownership, government ownership, family ownership, leverage, and ROA are positively skewed

Table 1: Descriptive statistics

Variables	SRP	MOWN	IOWN	GOWN	FOWN	FAOWN	FSZE	LEVR	ROA
Mean	0.521	6.496	64.518	1.08	54.242	0.600	18.670	2.720	0.034
Median	0.535	0.040	69.340	0.000	61.720	0.000	18.699	1.338	0.027
Maximum	0.611	56.506	88.130	10.650	83.810	3.000	20.213	13.511	0.264
Minimum	0.404	0.000	14.910	0.000	0.000	0.000	16.569	0.391	0.092
Std.Dev	0.067	15.792	17.152	2.915	27.178	0.782	0.963	3.049	0.068
Skewness	-0.451	2.480	-1.251	2.726	-1.083	-1.083	-0.345	1.932	0.976
Kurtosis	1.899	7.688	4.233	8.857	2.741	4.546	2.438	6.427	5.592
J.Bera	4.223	97.071	16.221	13.415	9.920	20.005	1.652	15.591	12.941
Prob	0.120	0.000	0.000	0.000	0.000	0.000	0.437	0.000	0.000

Table 2: Correlation matrix

SRD	1.000								
MOWN	0.485	1.000							
IOWN	0.468	-0.383	1.000						
GOWN	-0.461	0.897	-0.135	1.000					
FOWN	0.606	-0.801	0.835	-0.604	1.000				
FAOWN	0.045	-0.007	0.120	0.027	0.083	1.000			
FSZE	0.118	0.347	0.167	0.426	-0.086	-0.017	1.000		
LEV	-0.199	0.433	-0.024	0.441	-0.251	0.001	0.427	1.000	
ROA	0.112	-0.162	0.295	-0.059	0.260	-0.051	0.218	0.305	1.000

SRD: Represents sustainability reporting disclosure, MOWN: Denotes managerial ownership, IOWN: Is the institutional ownership, GOWN: Denotes government ownership, FOWN: Represents foreign ownership, FAOWN: Signifies family ownership, FSZE: Represents firm size, LEVR: Denotes leverage, and ROA: Represents returns on asset

towards the right, as their mean values are greater than the median values. Conversely, sustainability reporting, institutional ownership, foreign ownership, and firm size are negatively skewed. Additionally, the kurtosis analysis, which reflects the extent of outliers or extreme values in the dataset, shows that sustainability reporting, foreign ownership, and firm size are platykurtic in nature, whereas the remaining variables are leptokurtic in nature. The Jarque-Bera statistics for normality depict substantial deviation from the normal distribution, with most variables not being normally distributed except for sustainability reporting and firm size.

4.2. Pairwise Correlation Analysis

Furthermore, the association between the variables was investigated using pairwise correlation analysis. Table 2 displays the outcome of the correlation matrix. The results indicate that managerial ownership, institutional ownership, foreign ownership, family ownership, firm size, and ROA exhibit a positive correlation with sustainability reporting. This highlights that surges in these variables facilitate efficient sustainability reporting among the selected firms in Nigeria. Conversely, the coefficient associated with government ownership and leverage reveals a negative correlation with sustainability reporting in Nigeria, indicating that an increase in government ownership and leverage may undermine sustainability reporting in Nigeria. Overall, the correlation analysis does not provide evidence of potential multicollinearity among the variables.

4.3. Variance Inflation Factor (VIF)

This study additionally explores the potential presence of multicollinearity among the variables by conducting a variance inflation factor (VIF) analysis for thorough examination. The results of the collinearity tests are presented in Table 3. The results indicate that the variance inflation factors for the regression variables do not exceed ten, implying that there is no significant multicollinearity among the variables.

Table 3: Variance inflation factor test

Variables	Coefficient variance	Uncentered VIF	Centred VIF
C	1.690	7.106	NA
MOWN	0.193	8.445	4.408
IOWN	0.070	12.661	2.483
GOWN	0.324	18.297	6.743
FOWN	0.589	14.998	2.856
FAWN	0.014	6.151	1.306
FSZE	0.311	5.447	2.222
LEVR	0.148	17.184	5.374
ROA	0.003	13.332	4.284

4.4. Principal Component Analysis (PCA)

The study also applies principal component analysis (PCA) to construct a composite ownership structure index. The results of the PCA are displayed in Table 4. The findings reveal that the first component for the ownership structure variable is chosen, as it accounts for the highest proportion of the total variation, with the eigenvalue accounting for 3.110%. The remaining first three components also have eigenvalues close to unity, suggesting that they are significant loadings. In conclusion, the variables fulfil all the necessary criteria to be considered when computing the ownership structure index.

4.5. Stationarity Test

Furthermore, the study evaluates the stationary characteristics of the analyzed variables using the panel unit root tests developed by Levin et al. (2002) and Im et al. (2003). The outcomes of these tests are shown in Table 5. According to the LLC test, sustainability reporting, managerial ownership, institutional ownership, government ownership, foreign ownership, family ownership, firm size, and ROA are non-stationary at level, while ownership structure index and leverage are stationary at level. However, upon taking the first difference, all the variables become stationary. The IPS test results indicate that only leverage and ownership structure index are stationary at level, while the remaining variables become

Table 4: Principal component analysis for ownership structure index

Number	Value	Difference	Proportion	Cumulative value	Cumulative proportion
1	3.110835	1.967948	0.6222	3.110835	0.6222
2	1.142887	0.478935	0.2286	4.253723	0.8507
3	0.663952	0.597247	0.1328	4.917675	0.9835
4	0.066705	0.051084	0.0133	4.984379	0.9969
5	0.015621	---	0.0031	5.000000	1.0000
Eigenvectors (loadings)					
Variable	PC 1	PC 2	PC 3	PC 4	PC 5
MOWN	-0.509535	0.373284	-0.001690	0.681205	0.370122
IOWN	0.396671	0.552998	-0.479739	0.258574	-0.489730
GOWN	-0.428176	0.584720	-0.111901	-0.676698	0.065773
FOWN	0.546364	0.150996	-0.229656	-0.100989	0.784695
FAWN	0.318086	0.436068	0.839395	0.031312	-0.055692

Table 5: Panel root tests

Variable	LLC	LLC	IPS	IPS
	Level	First difference	Level	First difference
SRP	-2.395	-6.625*	-2.633	-6.225*
MOWN	-1.618	-5.394*	-1.839	-5.692*
IOWN	-1.423	-4.806*	-1.720	-4.992*
GOWN	-2.739	-6.042*	-2.831	-6.234*
FOWN	-1.611	-5.579*	-1.670	-5.814*
FAWN	-1.195	-5.681*	-1.290	-5.723*
FDEX	-3.482*	-7.632*	-3.992*	-8.016*
FSIZE	-2.148	-7.136*	-2.120	-7.226*
LEVR	-4.035*	-5.874*	-3.203*	-7.174*
ROA	-2.111	-8.378*	-2.165	-9.051*

*, **, and *** indicate significance at 1%, 5%, and 10%. FDEX represents ownership structure index

stationary at the first difference. These findings imply that the variables exhibit a specific order of integration, either I(0) or I(1).

4.6. Panel Cointegration Test

The next stage in the empirical analysis is to evaluate the potential long-term cointegration between ownership structure and sustainability reporting in Nigeria using the cointegration tests developed by Pedroni (2001) and Kao (1999). These tests are designed to identify the existence of long-term equilibrium linkages among the examined variables. The Pedroni cointegration test involves seven test statistics, including the Panel v -statistic, Panel rho-statistics, Panel PP-statistics, Panel ADF-statistics, Group rho-statistics, Group PP-statistics, and Group ADF-statistics. The outcomes of the cointegration tests are presented in Table 6, which includes six models, each featuring a separate ownership structure measure and ownership structure index. The results of the Pedroni cointegration test reject the null hypothesis of no cointegration, indicating the presence of a long-term relationship among the variables. Similarly, the Kao cointegration test provides evidence of cointegration among variables. In conclusion, the cointegration test results confirm the existence of long-term equilibrium linkages among the variables under examination.

4.7. Estimation Strategy: FMOLS and DOLS Results

The outcomes of the empirical analysis of the associations between ownership structures and sustainability reporting disclosure in Nigeria, based on FMOLS (models 1-6) and DOLS (models 7-12) estimation techniques, are displayed in Table 7. Each ownership structure indicator is presented separately in the table.

The estimated long-term coefficients for firm size are positive and statistically significant across all models. Furthermore, the estimated coefficients of returns on assets (ROA) are positive and significant in all models except model 8. Besides, the estimated coefficients of leverage are negative and statistically significant in all model specifications.

5. DISCUSSION

The estimated long-term coefficients for firm size are positive and statistically significant across all models. This indicates that expanding a firm's capacity positively impacts its internal and external structures and business operations and reduces information asymmetry which consequently supports sustainability reporting disclosure among listed firms in Nigeria. Furthermore, the estimated coefficients of returns on assets (ROA) are positive and significant in all models except model 8. This finding suggests that an increase in the rate of return for listed companies strengthens their competitive advantage, profitability, and procurement practices, leading to the efficient disclosure of environmental, economic, and social information. This result aligns with the findings of previous studies, such as those conducted by Nguyen and Nguyen, (2020), Adelowotan and Udofia (2021), and Wahyudi (2021).

The estimated coefficients of leverage are negative and statistically significant in all model specifications. This result implies that companies with increasing debt-equity ratios allocate more financial resources towards servicing their debts, which in turn reduces profits and business operations and thus undermines the disclosure of sustainability information. Furthermore, the surge in leverage leads to an expansion of the debt-equity ratio, adversely impacting profitability due to the need for additional funds to maintain the outstanding debt, thereby affecting sustainability reporting in Nigeria. This finding aligns with the empirical studies conducted by Antara et al. (2020) and Andrikopoulos and Krikilani (2013), which also reported similar findings through their empirical examinations.

Turning to the main explanatory variables, the estimated coefficient of managerial ownership is positively linked to sustainability reporting in Nigeria. This finding highlights that increasing management involvement in ownership enhances effective financial control, company reputation, and stakeholders' effective decision making, which consequently promotes the sustainability

Table 6: Panel cointegration tests

Test statistics	1	2	3	4	5	6
Panel v-Statistics	-0.745	-0.912	1.426	-0.736	0.916	-1.122
Panel rho-Statistics	0.422	1.759	3.193	2.373	4.031	3.073
Panel PP-Statistics	-5.116*	-7.046*	-5.402*	-7.440*	-5.360*	-5.662*
Panel ADF Statistics	-7.195*	10.013*	-8.105*	-6.897*	-7.463*	-9.100*
Group rho-Statistics	5.372	6.089	4.185	5.052	8.047	7.373
Group PP Statistics	-6.019*	-4.689*	-3.680**	-4.143*	-5.472*	-4.135*
Group ADF Statistics	-5.127*	-5.196*	-4.820*	-3.274*	-3.837*	-5.046*
Kao ADF t-Statistics	-2.751**	-4.344*	-7.067*	-3.616*	-4.376*	-3.019*

*, **, and *** indicate significance at 1%, 5%, and 10%

Table 7: FMOLS and DOLS results

Variables	1	2	3	4	5	6	7	8	9	10	11	12
FSZE	0.247** (0.050)	0.174* (0.011)	0.366* (0.000)	0.631** (0.027)	0.172* (0.000)	0.667** (0.031)	0.137* (0.000)	0.437* (0.005)	0.468* (0.001)	0.259* (0.000)	0.105* (0.000)	0.378* (0.004)
LEVR	-0.107* (0.000)	-0.717* (0.005)	-0.159*** (0.081)	-0.165* (0.007)	-0.186** (0.034)	-0.755* (0.000)	-0.186* (0.002)	-0.148*** (0.065)	-0.271* (0.000)	-0.324** (0.045)	-0.417* (0.013)	-0.513* (0.000)
ROA	0.396** (0.018)	0.438** (0.050)	0.104* (0.000)	0.724** (0.031)	0.112* (0.000)	0.212* (0.007)	0.106** (0.037)	0.532 (0.122)	0.371* (0.009)	0.101* (0.000)	0.218* (0.000)	0.141* (0.000)
MOWN	0.150*** (0.089)						0.319* (0.000)					
IOWN		0.208* (0.000)						0.137* (0.000)				
GOWN			0.104** (0.035)						0.343* (0.001)			
FOWN				0.122* (0.000)						0.181* (0.000)		
FAWN					0.695** (0.031)						0.225* (0.000)	
FDEX						0.275* (0.000)						0.510* (0.000)
R ²	0.894	0.961	0.690	0.714	0.885	0.561	0.793	0.645	0.901	0.699	0.831	0.759

*, **, and *** indicate significance at 1%, 5%, and 10%. FMOLS: Fully modified ordinary least square, DOLS: Dynamic ordinary least square

reporting disclosures. This finding also suggests that increasing the managerial participation of owners or stakeholders facilitates proactive decision-making and effective business monitoring, minimizes agency conflicts, and restores confidence in business performance, thereby promoting sustainability disclosure of the firms considered in Nigeria. This outcome is consistent with the results reported by Mahdi et al. (2023), and Wei et al. (2024), but contrary to Masud et al. (2018) in their empirical scrutiny.

Similarly, the estimated coefficient of institutional ownership is positive and significant. This result indicates that an increasing share of ownership stakes held by institutional investors in multinational companies enhances effective control, corporate structure, and company accountability for their assets and business operations, which consequently promotes environmental, social, economic, and governance information disclosure. This finding also shows that increasing the institutional ownership of the considered firms exerts substantial voting rights on other shareholders, increases their engagement in environmental management, and promotes corporate transparency and accountability, which consequently accelerates sustainability reporting. This finding is in congruence with Mahdi et al. (2023) but contrary to Indy et al. (2022), who argued that increasing institutional ownership promotes free ridership and increases firm costs due to institutional owners' focus on short-term returns.

Furthermore, the estimated coefficient of foreign ownership is positive and statistically significant, signifying that increasing foreign investor ownership in a company stimulates proper resource management, risk management, stakeholder values, and legitimacy strategies, which enhance the sustainability reporting of the chosen firms in Nigeria. This outcome further shows that increasing foreign ownership exerts more legitimacy on the firm's operation, maximizes stakeholder value, and promotes transparency and trust, which ultimately facilitates effective disclosures of economic, social, and environmental reporting in Nigeria. This finding aligns with those of Moses et al. (2023) and Hasan et al. (2021 and Correa-Garcia et al. (2020), Gimbason and Yahaya (2024), but contrary to findings of Chang et al. (2019).

The estimated coefficients of government ownership are negative, but statistically insignificant when linked to sustainability reporting disclosure in Nigeria. This finding indicates that increasing government ownership does not promote sustainability reporting, possibly because of bureaucracy, inefficiency, poor economic reforms, and nepotism that are associated with government activities. Finally, the estimated coefficient of family ownership is positively and significantly associated with sustainability reporting in Nigeria. This result indicates that the family dominance of business

ownership facilitates an efficient supervisory role, proper monitoring of financial assets and profitability, and eliminates profit diversification, thereby promoting sustainability reporting for selected firms in Nigeria.

This outcome also indicates that the increasing presence of family ownership enhances enforcement of management decisions, promotes family image and reputation, and facilitates an active role in establishing common interests with other stakeholders, thereby promoting sustainability reporting in Nigeria. This finding is consistent with those of Mahdi et al. (2023), but contrary to the findings of Aman et al. (2021).

Regarding the composite index, the estimated coefficient of ownership structure index is positive and statistically significant with sustainability reporting in Nigeria. This outcome highlights that increasing ownership structure enhances stakeholders' interest, equity distribution, voting efficiency, company transparency, and accountability, thereby promoting sustainability reporting of analyzed firms. This finding also shows that increasing ownership concentration ensures effective management of firm resources, reduces management expropriation of resources, and removes information asymmetries, thereby leading to sustainability reporting for the considered firms in Nigeria. This outcome corroborates the theoretical arguments of stakeholder theory, which opined that increasing ownership structure enhances the expectations of stakeholders for the company (Al Amosh and Mansori, 2021). This evidence is consistent with the outcomes of the study of Fauzi and Locke (2012), which found similar outcomes in their investigations.

6. CONCLUSION

The study investigated the effect of ownership structure on sustainability reporting among listed multinational companies in Nigeria. The study used a sample of 10 multinational companies listed in Nigeria Exchange Group from 2018 to 2022. The findings show managerial ownership, institutional ownership, foreign ownership and family ownership are positively and significantly associated with sustainability reporting disclosures. However, government ownership is negatively associated with sustainability reporting. Collectively, this study's findings provide strong empirical evidence that ownership structure impact sustainability reporting practices of listed multinational companies in Nigeria. The findings suggest that most ownership structure can help management monitor, control, and promote sustainability reporting.

Based on data analysis and conclusion, the study hereby recommends that stakeholders of the multinational companies should encourage managerial ownership structure that will ensure effective financial control, company reputation and stakeholders' effective decision-making, which subsequently promote sustainability disclosures. Also, the study recommends more participation of foreign investors ownership, while government ownership should be discouraged because of bureaucracy inefficiency, poor economic reforms, and nepotism that accompany government involvement in business.

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