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Ownership Structure and Environmental Disclosure among Nigerian Listed Firms

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Abstract
The study investigated the effect of ownership settings on Nigerian listed firms' environmental disclosure for the period 2012 – 2022. The predicting variables includes managerial ownership, foreign ownership, government ownership, and institutional ownership. A correlational approach was adopted to explore the variables' natural relationships. Published annual reports of 95 Nigerian listed firms were used as a source of secondary data. The extent of environmental disclosure by the sampled firms was measured using the Global Reporting Index (GRI). Panel regression analysis revealed that foreign, government and institutional ownership have a significantly positive effect on environmental disclosure among Nigerian listed firms. Although, the findings did not yield conclusive evidence on a link between managerial ownership and environmental disclosure among the companies. The results of this study are crucial for regulatory authorities, stakeholders and policymakers, as it pinpoint the most effective strategies for firms to address environmental disclosure challenges and highlight key factors that drive and enhance environmental transparency. As a result, the study recommended that the industry regulators should work together with government in revitalizing the nation's economy which in turn encourage more investment from foreign investors. Additionally, management should prioritize and encourage government and institutional holding in the Nigerian listed firms as there monitoring characteristics can enhance firm's environmental disclosure practices.

Keywords: Environmental Disclosure, Managerial Ownership, Foreign Ownership, Government Ownership, Institutional Ownership.

1.0 Introduction

The environmental reporting policy coliseum has gone through meaningful developments in the previous years. This was stimulated partially by thriving curiosity in linking conventional financial reporting activities with sustainability and environmental reporting. This concern emerges mainly from the threat caused by the harmful effects and environmental problems which resulted to extensive pressure both from regulators, society within the immediate environment companies operate as well as existing and potential investors. The classical approach of business originates conceptually from motive of maximizing company's profitability in addition to wealth maximization of shareholders. To support that, Ibrahim et al. (2023) documented that environmental reporting has significant effect on financial success of a business entity as a going concern and advised firms to focus more on openly communicating their environmental concerns.

However, the emergence of numerous environmental predicament globally has led to an increasing public sensitivity concerning firms' accountability to society (Chang & Le 2015). Regulators and standard setters are now targeted unceasingly on intensifying the quality and quantity of corporate disclosure. Stock exchanges are showcasing listing requirements, and governments are adopting frameworks for sustainable global best practice, all of which signal a transition on route to environmental and sustainable finance solutions.

In Nigeria, the Nigerian Exchange Group (NEG) has charged the Nigerian listed firms to incorporate their social and environmental information in their published financials and annual reports, though not mandatory. Other regulatory bodies such as Federal Ministry of Environment, National Oil Spill Detection and Response Agency, Directorate of Petroleum Resources (DPR), National Environmental Standards and Regulation Enforcement Agency (NESREA) and Nigerian Nuclear Regulatory Authority among others were also put in place by the Nigerian government to ensure adherence and commitments to environmental issues (Adeyemi et al., 2021).

The investigation of what factors influences environmental disclosure practice qualitatively or quantitatively were extensively researched and documented in the literature. While, previous studies document that environmental disclosure (ENDC) is bound up with array of factors, comprising board characteristics in terms of its size, independence, meeting, expertise and gender diversity (Khan et al. 2024, Augustine & Francis, 2023; Adeyemi et al.2021; Khaireddine et al., 2020 ; Che-Adam et al. 2019; Aliyu, 2019; Rabi, 2019 and Umukoro et al., 2019), CEO duality (Samaha et al. 2015), financial expertise of board, independency and financial expertise of audit committee (Hassan et al. 2020), corporate governance (Ezhilarasi & Kabra 2017) among others.

Other streams of literature posited that ENDC have linkage with components of audit committee in terms of its independence (Hassan et al. 2022), effectiveness (Ika et al. 2020), audit committee independence and meetings (Mamman et al., 2021 and Altawalbeh, 2020), activism and independence of audit committee (Arif et al. 2020) among others.

Conversely, a small number of research examined the nexus of diverse ownership pattern and ENDC among companies around the globe. For instance, Razaq et al. (2023) investigated the effect of institutional ownership and foreign ownership on sustainability reporting, Acar et al. 2020 examined the effect state ownership and INOWN on ENDC of some cross countries, Almosh and Mansor (2020) investigated the nexus between foreign ownership (FROWN), government ownership (GOVOWN), managerial ownership (MGOWN) and block-holder ownership and ENDC of industrial companies listed in Jordan, Akrout and Othman (2016) assessed the impact of family and GOVOWN on ENDC of chemicals, pharmaceuticals and automotive companies in Middle Eastern and North African, Dewi and Honggowati studied the effect of institutional ownership (INOW) and MGOWN of the mining and real estate and building construction sectors of Indonesian companies.

The discoveries of their research have reported a diverse result with some documenting a direct significant effect of those variables on ENDC while other researches have documented significant inverse effect or no relationship respectively between the explained and explanatory variables.

The aforementioned studies were conducted on sectoral basis, as such, the findings from a specific domain might not be applicable to another, perhaps due to different sectoral guidelines and regulations governing the sector, equally differences in their policies, capital structure and the nature and their operational risk to the environment. This called for investigating the entire sector of the Nigerian Exchange Group (NGX). Therefore, this study chose to take a robust and wider scope of the entire listed firms in Nigeria and specifically to determine the nexus within various ownership pattern and ENDC.

2.0 Literature Review and Hypotheses Development

According Gerged et al., (2022) and Hassan & Romilly, (2018), ENDC is the communication of information to stakeholders about a company's environmental strategies, policies, and performance. Similarly, Hendri & Puteri (2015) described ENDC as a channel via which a going concern business entity reports its environmental activities to the stakeholders. It serves as a central resource for information about the company's survivability strategies, providing details about important environmental issues and their effects on business performance and survival, including environmental risks and uncertainties, environmental policies, and tangible environmental costs and revenues (Gerged et al., 2021; Shahab et al., 2018).

Similarly, Ong et al., (2016) considered ENDC as a prepared report that explains firm environmental burden and all the initiatives encompassing the company's environmental policy and impacts which are regularly made public. Also, Nurleli, (2016) sees ENDC as a communication of environmental facts in the annual report of an organization".

Hallgren and Johansson (2016) partitioned ENDC into 3 unique divisions, namely: full, adequate and fair. Full disclosure refers to an instance where comprehensive information that is significantly influencing judgments and decisions of users is provided. Adequate disclosure refers to a minimum standard present in sustainability reporting. Furthermore, the fair disclosure refers to moderate disclosure, and this group of disclosure is generally found in majority sustainability reporting (Hallgren & Johansson, 2016). This study considered ENDC as the extent to which operating firms adhere to the requirements of GRI index as endorsed by the NSE. ENDC can be viewed as a symbol of transparency, resulting in a better corporate reputation (Darnall et al., 2022; Haque & Ntim, 2018).

Watanabel et al., (2022) opined that ownership structure is a mechanism that balances the firm's interests of shareholders and managers. Ownership structure was found to be the most important way and manner that an entity can maximize its value. This is can only achieved through a well-planned and efficient ownership structuring (Alkurdi & Mardini, 2020). There are numerous form of ownership including FROWN, MGOWN, GOVOW, individual block ownership, INOWN and family ownership among others.

Managerial Ownership and Environmental Disclosure

MGOWN is the percentage of share owned by the management and directors of the company who are actively participating in the running of the firm (Singal & Putra, 2019). From a theoretical lens, MGOWN is expected to have a direct effect on ENDC, this signifies that the higher the managerial shareholding in an entity, the better the attention of managers in ensuring the shareholders motive of wealth maximization, this in turn increase the trust which resulted to superior financial return of the company (Pasaribu et al., 2016). Agency theorist opined that the conflict of interest between business owners and the agents in instances where the agents are found acting in contrast of the principal interests will trigger agency costs. Conclusively, greater managerial shareholding will give managers more impetus to conduct themselves ethically and professionally and in line with the interests of principals, including ENDC responsibility (Sintyawati & Dewi, 2018). Wei, et al., 2024; Abu Qa'dan & Suwaidan, 2019 and Nurleni et al., (2018) showed that MGOWN has positive influence on ENDC.

Compatible with the convergence of interest framework, firm managerial owners can exert a decisive part in minimizing or eradicating agency conflicts that are bound to exist between owners of business and agents that manage the business on behalf of the owners by aligning managers' goals with shareholders' objectives (Jensen, 1993). Similarly, the proponents of stakeholder theory posited that, managerial shareholders play a significant role in disclosing information (Sufian & Zahan, 2013), and this suggest that the managers that equally happened to be shareholders of the company can view their personal gain same with that of company shareholders in addition to the interest of other stakeholders. Thus, this leads to taking sound decisions for the good of everyone which in turn increase the possibilities of disclosing an enhanced details regarding the environment.

In the contrary, the product of investigations conducted by different scholars on the nexus between the managerial shareholders and ENDC around the globe such as Dewi and Honggowati, (2023), Jubaedah and Setiawan (2023) and Gerged (2020) depicted an inversely significant effect of managerial shareholding on ENDC. The results documented by the aforementioned studies corroborates with the position of Morck et al., (1988), who believed that high proportion of managerial shareholding may have a reverse effect by entitling managers to more privileges and protections, denoting dominance and increased opportunity to utilize their opportunistic tendencies. As identified by the entrenchment theory, managerial shareholding could potentially widen the information disparity by disclosing less information. Ullah et al. (2019), opined that managerial owners appeared to be more concerned about any decrease in their benefit from the company earnings and they might be less enthusiastic about any spending that pertains ENDC related activities. Originating from this discussion, the study yielded the following hypothesis:

H1: Managerial ownership has no considerable effect on Nigerian listed firms' environmental disclosure.

Foreign Ownership and Environmental Disclosure

FROWN could be perceived as the percentage of shares owned by international investors (Gerged, 2020). Foreign shareholders are anticipated to hold a vital function in the ownership framework of an entity because foreign shareholders might enjoy dominant control to monitor managements' behavior than domestic shareholders perhaps due to their additional advantage of multinational experiences.

Foreign shareholding of firms serves as an essential mechanism that encourages companies moving towards more ENDC (Tsang, et al. 2023). The legitimacy theory advocates this shift, as they reflect that ownership from foreign investors significantly collaborate in legitimizing the firm presence in a particular community.

Prior examination on the nexus between foreign shareholding and ENDC upheld the notion that investment of multinationals is a crucial element in ENDC among listed companies, such as (Zhang & Wu 2024; Jubaedah & Setiawan 2023; Fuadah et al., 2022; Al Amosh & Mansor, 2020; Gerged 2020; Fitri et al. 2019; Yin & Wang 2018; Masud et al. 2018; and Ezhilarasi & Kabra 2017), where they presented testimonies of direct influence of foreign shareholders on reporting ENDC. However, Matta (2017) documented an insignificant influence on the tie between foreign stockholders and ENDC. Building on agency theory, earlier past studies contend that presence of foreign shareholders in a listed business entity have direct influence on ENDC practices, intimating that international investors strongly need an up to date environmental metrics to circumvent the threat of resources exploitation. In addition, listed companies that happened to have foreigners as majority shareholders potentially need an intensified ENDC as a means of attaining foreign reporting requirements. Stemming from the aforementioned points, the study developed hypothesis that:

H2: Foreign ownership has no considerable effect on Nigerian listed firms' environmental disclosure.

Government Ownership and Environmental disclosure

The legitimacy theorist considered the ownership of companies by government as one a crucial component in incentivizing managements of corporations in the provision of more disclosures which aid the stakeholders in taking a sound decision about the entity. In contrast, some scholars maintained that a higher level of GOVOWN in companies inversely affects ENDC practices (Al-Janadi & Alazzani 2016). Commensurately, the government attend to the societal issues, interests and the environment. Therefore, this culminates into putting stronger demas on business entities to enroll more actively and effectively in catering the community and ecological needs. Previous literature on the nexus between GOVOWN and ENDC provided evidences of direct significant relationship between the explanatory and explained variable. Where Song and Xiong (2023), Acar et al., 2020, Al Amosh & Mansor, 2020, Saleh et al. (2017), Matta (2017), Khlif et al., (2017), Akrout and Othman (2016) and Haddad et al (2015). On the contrary, Wei, et al., (2024) and Ellili (2020) in their studies established a negative significant influence of GOVOWN on ENDC.

Given the current circumstances of voluntary ENDC and in agreement with legitimacy and stakeholder theories, the study opine that ownership of state can promote the practices of ENDC, as having governmental representatives on the company's' board are conceivably to showcase their efforts in ensuring adherence to at least some fundamental environmental issues. Hence, we propose the following hypothesis:

H3: Government Ownership has no considerable effect on Nigerian listed firms' environmental disclosure.

Institutional ownership and Environmental disclosure

Singal & Putra (2019) described INOWN as the share of companies owned by institutions, such as banks, insurance companies, and pension firms among others. Institutional shareholders are viewed as collection of business owners that relatively owned large shareholdings (Abu Qa'dan & Suwaidan, 2019). Consequently, institutional owners are expected to observe more closely the company's long-term outcomes and performance, this is only achievable by ensuring that companies are equipped with competent agents that professionally and ethically managed the business through adhering to global best practices such as ENDC. Therefore, institutional shareholders are always incline towards sustainability initiatives accomplished by the company where they are shareholders.

From the theoretical point of view, the institutional shareholders are poised to provide an exceptional oversight function of the overall company's investment which encompasses the financial and non-financial performance. The non-financial information aspect is of paramount important because, the information provides an abridge of the magnitude regarding which business entity can withstand confronting the environmental developments, which also has a bearing with the overall performance of a going concern entity in the future (Singal & Putra, 2019).

Oh et al. (2016) posits that institutional shareholders' direct firms towards making some sound decisions that is most advantageous to stakeholders due to their proactive oversight roles. Thus, Chang (2013b) maintain that a firm that symbolized with a greater portion of institutional shareholders has potentiality of disclosing more insight regarding to environmental activities. Moreover, the institutional owners significantly utilize their considerable voting power and they enjoyed information advantages over other shareholders (Chang & Le 2015). For example, studies conducted by Dewi and Honggowati, (2023), Abu Qa'dan and Suwaidan (2019), Singal and Putra (2019) Kolk et al. (2018), Nurleni et al., 2018, Kim and Yi (2015) have proven that institutional shareholder of companies had positive effect on ENDC. The deductions derived from those examinations are align with the existing theory. In contrary, Wei, et al., 2024, Acar et al., 2020, Gerged 2020, Yadav (2020) marked a strong inverse relationship on the nexus linking INOWN and ENDC. Nevertheless, the findings from the investigation by Shin and Park (2020) uncovered that INOWN has no substantial impact on ENDC. The possible explanation for a negative influence of institutional owners on ENDC could be attributable to reoriented approach of institutional holders toward firms' financial short-terms interest on the contrary of long-term benefits. This sudden change by the institutional owners will cause the companies paying less attention to the environmental needs as well as other. This finding contradict the theory of legitimacy. Therefore, built on the above literature, the hypothesis proposed is that:

H4: Institutional Ownership has no considerable effect on Nigerian listed firms' environmental disclosure.

3.0 Methodology

The study adopts employs a correlational approach to investigate the nexus between ownership structure and ENDC. This approach is best suited for analyzing the association of variables. This design permits examining the variables associations without intervention any of them, rendering it perfect for examining real-world relationship in their natural context. The research population include all 162 firms from the 11 sectors listed on NGX as at 31st December, 2023. To be eligible, an entity must have been quoted prior to 2012 and continuously listed up to 2023 and data for the specified timeframe must be accessible. After applying the criteria, 67 firms were deemed incomplete, leaving a total of 95 firms that fulfilled the criteria. Archival data from publicly traded companies for 11years form the basis of this study.

Model Specification

A linear regression model was employed for evaluating the relationship between ownership structure and ENDC. This is consistent with the assumptions of Ji and Ji (2022) and Cek and Eyupoglu (2020); who also highlighted that a panel regression model can be applied to investigate the effect explanatory variables on the explained variable. The model was thus presented in general as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_n X_n \ldots\ldots (1)$$

$$ENDCit = \beta_0 + \beta_1 MGOWN_{it} + \beta_2 FROWN_{it} + \beta_3 GOVOW_{it} + \beta_4 INOWN_{it}\ \beta_5 FSZ_{it} + \mu_{it} \ldots\ldots (2)$$

Where:

β0	Beta (Constant)
β1 - 5	Beta (Coefficients)
i	Firms
t	Time Measured in Years
u	Error Term
ENDC	Environmental Disclosure
MGOWN	MGOWN
FROWN	FROWN
GOVOW	GOVOWN
INOWN	INOWN
FSZ	Firm Size

Table 1. Variable Measurements

Type	Construct	Proxy	Measurement	Apriori	Source
Dependent Variable	Environmental Disclosure	ENDC	Unweighted GRI disclosure index, 1for disclosure and 0 for none		Yardimci and Durak, (2022)
Independent variable	Managerial ownership	MGOWN	Percentage of shareholding of Directors to the total number of ordinary shares	+/-	Xu et al. (2021)
Independent variable	Foreign ownership	FROWN	Proportion of shares owned by foreign investors to the total number of ordinary shares	+	Acar et al. (2021); Fitri et al. (2019)
Independent variable	Government ownership	GOVOW	Proportion of shareholding of Government to the total number of ordinary shares	+/-	Saleh et al.(2017)
Independent variable	Institutional ownership	INOWN	Proportion of shareholding by corporate bodies such as foundations, banks, insurance companies, investment firms, pension funds and limited liability firms to the total number of ordinary shares	+/-	Musa (2023)
Control variable	Firm Size	FSZ	Natural logarithm of Firm's Total assets	+/-	Musa (2023)

Source: Author's Compilation, 2024.

4.0 Results and Discussion

Descriptive Statistics

ENDC was the explained variable of the study while the explanatory and control variables are: MGOWN, FROWN, GOVOW, INOWN and FSZ respectively. Descriptive statistics in form of mean, minimum, maximum and standard deviation was used in order to identify the unique pattern of the data. Table 3 displays a summary of the key statistics from the data obtained.

Table 2. Descriptive Statistics

	ENDC	MGOWN	FROWN	GOVOW	INOWN	FSZ
Mean	0.0406	0.0289	0.1733	0.0001	0.2121	8.0693
Maximum	0.5130	0.2534	0.8600	0.0006	0.8700	8.8997
Minimum	0.0000	0.0000	0.0000	0.0000	0.0000	7.0127
Std. Dev.	0.0748	0.0492	0.2408	0.0001	0.1759	0.2792

Source: Author's Computation, 2024.

Table 2 indicated that, the value for ENDC falls within 0 and 1, this is due to dichotomous classification of the dependent variable. Considering the average variability values of ENDC (0.0406, 0.0748) respectively as depicted in the table above indicating that on average only 4.1% among the Nigerian listed firms are disclosing environmental related issues in their annual reports which is quite insignificant and contrary to the global best practice. The standard deviation of 0.075 is considered a bit wide from the mean proving wide dispersion of the sampled data which is also an indication of studying diverse sector. Furthermore, the values 0.5130 and 0.0000 represents the highest and lowest ENDC values. The highest ENDC value was discovered among companies that falls under consumer goods group. Also, this pinpoints that while some listed companies adopted good practice concerning the environment where they operate by having an average of 51.3% others are still operating at zero level which might be attributable to the scope of the study which comprised 11 diverse sector of the economy with different sizes, complexities and their level of environmental awareness.

MGOWN, FROWN, GOVOW and INOW have a least value of 0.000, across, while they record a highest of 0.2534, 0.8600, 0.0006 and 0.8700, respectively. This highlights that there is total absence of some ownership categories in some Nigerian businesses. The lowest maximum value of MGOWN was traced to agriculture of the Nigerian economy, maximum value from conglomerate companies, maximum and minimum for GOVOWN was equally derived from agricultural sector and finally, the lowest and highest value for INOWN are traced to cement companies. However, records have shown that, on average, the mean value for MGOWN, FROWN, GOVOW and INOW are 2.89%, 17.33%, 0.01% and 21.21% respectively. The results show that FROWN has the least average of 0.01% followed by MGOWN with 2.89%, this may be connected to the economic uncertainties and high cost of business which are linked to lower returns of some investments.

The control variable of firm size (FSZ) measured as natural logarithm of company total assets showed an average value of 8.069. However, records during the period showed that firm size attained maximum of 8.8997 with smallest asset size traced to service sector while highest assets size were traced to financial sector of the economy.

Correlation Analysis

The correlational research is performed to check the association between explained and each of the explanatory variables. This was done using Pearson's correlation. The analysis is convenient in confirming the degree or extent of relationship among all independent variables as unduly correlation could result to multicollinearity, which resulted to a misleading findings and conclusions. Table 4 presents the correlation matrix for all the variables.

Table 3. Correlation Matrix

VARIABLES	ENDC	MGOWN	FROWN	GOVOW	INOWN	FSIZ
ENDC	1.000					
MGOWN	- 0.061	1.000				
FROWN	0.093	-0.074	1.000			
GOVOW	-0.113	0.035	-0.060	1.000		
INOWN	0.115	-0.022	-0.217	0.049	1.000	
FSZ	-0.029	-0.086	-0.081	-0.066	0.075	1.000

Source: Researchers' Computation, 2024.

From Table 3, the predicting variables MGOWN, GOVOW and FSZ are inversely related to the dependent variables while FROWN and INOWN related positively with the explained variable and control variables. Both positive and negative coefficients was discovered among the variables. However, none of the variables has a strong correlation between them. This indicates absence of multicollinearity between them. Furthermore, a separate test of multicollinearity was undertaken to reconfirm the presence or absence of multicollinearity. Accordingly, the VIF and tolerance value are advanced diagnostic tools for that purpose. The highest VIF was 1.07, while the mean VIF was found to be 1.03 which resolves suspicion of multicollinearity as presented previously by correlation matrix. In response to the heteroscedasticity finding indicating the call for Generalized Least Square (GLS) as assumptions of homoscedasticity was violated. The GLS require the conduct of Hausman test. From the result, we fail to reject the null hypothesis that the random effect model is adequate since the probability value is less than the level of significance, which is statistically significant at 5%. Hence, fixed effect is considered appropriate.

Table 4. Regression Result

Variable	coefficient	t-value	P>t
Constant	0.0749	1.18	0.506
MGOWN	0.0388	0.67	0.784
FROWN	0.0867	2.31	0.021
GOVOW	939.29	2.59	0.010
INOWN	0.0462	2.34	0.020
FSZ	-0.0131	-1.76	0.078
R^2			
	0.023		
F (5, 945)	11.81	0.000	

Source: Researchers' Computation, 2024.

The result as depicted in table 4 shows R^2 of 0.023 for the variables, which is the multiple coefficient of determination of the model. This signifies that only 2.3% of systematic variation among the Nigerian listed firms was jointly attributed to the changes in the MGOWN, FROWN, GOVOW and INOWN. This implies that the explanatory power of the explanatory variables only stood at 2.23 percent while the remaining 97.73 percent was captured by other variables not included in the model. Cohen (1988) sees the R^2 of 0.023 is situated within a narrow range indicating a small influence of the predicting variables on the explained variable represented by ENDC. This call for further investigation by adding more variables that were found to have effect on the explained variable. The F-statistics value of 11.81 which is statistical significant at 1% level supported the fitness of the model. The result indicated that the relationship between the explained and explanatory variables are not mere coincidence.

Also, table 5 exhibit a positive coefficient which indicates positive relationship between MGOWN, FROWN, GOVOW, INOW and ENDC. The result shows that FROWN, GOVOW and INOW has a direct significant effect on ENDC. The insignificant positive effect of MGOWN on ENDC is contrary to the findings of Wei, et al., 2024; Abu Qa'dan & Suwaidan, 2019 and Nurleni et al., (2018) who documented that MGOWN has positive influence on ENDC and also, not in line with the proponents of stakeholder theory who posited that, managerial shareholders play a significant role in disclosing information.

Moreover, the FROWN depicted a positive and significant effect on ENDC. The result is in congruent with the proposition of managerial hegemony theory that conceptualized a positive relationship between FROWN and ENDC. The established link is stated to be statistically significant at 5% with p-value of 0.021. The p-value is less than 5%, indicating that this study uncovered evidence to reject the null hypothesis that FROWN has no significant effect on ENDC of listed Nigerian firms. The result is in line with the prior findings of (Zhang & Wu 2024; Jubaedah & Setiawan, 2023; Fuadah et al., 2022; Al Amosh & Mansor, 2020; Gerged, 2020 and Fitri et al., 2019**)** who reported a significant positive relationship between FROWN and EDNC. However, The findings does not support the findings Matta (2017) who documented an insignificant influence who FROWN on EDNC.

Similarly, the coefficient of GOVOW is 939.29. The outcome from the parameter, as presented in the model is a clear sign of a statistical positive association, implying that GOVOW moves in the same direction with ENDC. Notwithstanding, the result is linked with managerial hegemony theory since the p-value of the z-statistics is 0.010, as shown in Table 5, the relationship formed is statistically significant at 5%. As a result of the p-value being less than 5%, this study revealed evidence to reject the null hypothesis that GOVOWN has no significant effect on ENDC of Nigerian listed firms. The findings is in agreement with the outcomes of Song and Xiong (2023), Acar et al., 2020, Al Amosh and Mansor, 2020, Saleh et al. (2017), Matta (2017) and Khlif et al., (2017). On the contrary, Wei, et al., (2024) and Ellili (2020) in their studies established a negative significant influence of GOVOWN on ENDC.

Furthermore, the INOWN coefficient, as shown in Table 3 is 0.046, indicating a positive association with the ENDC. It is clearly indicated that INOWN and ENDC moves in the same direction. It means that the more the INOWN, the greater the better chances of ENDC. The established tie is deemed to be statistically significant at 5% since the p-value of the z-statistics is 0.02, as shown in Table 5. Because the p-value is less than 5%, this result revealed evidence to reject the null hypothesis that INOWN has no significant influence on ENDC among the Nigerian listed firms. The outcome is in consonant with the studies conducted by Dewi and Honggowati, (2023), Abu Qa'dan and Suwaidan (2019), Singal and Putra (2019) Kolk et al. (2018), and Nurleni et al., 2018 who have proven that INOWN of companies had positive effect on ENDC. In contrary, Wei, et al., 2024, Acar et al., 2020, Gerged 2020,Yadav (2020) marked a strong inverse relationship on the nexus linking INOWN and ENDC while, Shin and Park (2020) uncovered that INOWN has no substantial impact on ENDC.

5.0 Conclusion and Recommendations

This study investigates the multidimensional associations between ownership structures and their concerted influence on ENDC. Ownership attributes, including FROWN, GOVOWN and INOWN, have significant effects ENDC. This accentuates the effect of diverse organizational ownership configuration on ENDC. Based on the outcome of this investigation regarding the nexus between ownership structure and ENDC, the study puts forward, among its recommendations that since the finding shows that FROWN leads to improve ENDC as such the government as a matter of urgency should come up with some policies and measures on ease of doing business and strict security measure that will motivate foreign shareholders to invest more in Nigerian listed companies. In addition, Government shareholding should be encouraged by security and exchange commission as a regulator, this will help in collaborating with stakeholders to ensure established environmental disclosure regulations enforcement and compliance with relevant standards. Lastly, engaging with institutional shareholders will foster transparency as they are proved to be advocates for best practices that may promote ENDC.

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