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Effect of Gender Diversity on Corporate Financial Performance of Multinational Firms in Nigeria

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ABSTRACT

This study focused on the impact of gender diversity on the financial performance of multinational companies in Nigeria, the financial performance is gauged on the basis of the return on capital employed (ROCE). The research puts emphasis on three dimensions of governance, that is, female boards, female audit committee composition and the size of the board. The analysis was done based on panel data (10 multinational firms during 15 years, 2010-2025) to test whether gender diversity is related to firm performance using correlation, variance inflation factor (VIF), and regression methods. The findings found out that female audit committee representation produces significant and positive impact on ROCE, which is statistically significant, whereas female board representation has significant positive impact on financial performance as well. Nevertheless, the size of the board was found to have negative but non-significant relationship with financial performance meaning that increased board size can be associated with decreased effectiveness of the decision-making process. The results of the study emphasize the role of female inclusion in government systems, particularly in audit committees and boards, as crucial factors of performance enhancement. The study is original and add value by revealing that gender diversity is statistically significant to the financial performance of multinational firms in Nigeria and that regulators and firms should intensify policies that foster gender inclusiveness at the governance level in Nigeria. The study recommended that Multinational firms should adopt deliberate policies to increase the inclusion of women in decision-making positions, as this has been shown to significantly enhance financial performance.

Keywords: Gender Diversity, Female Board Representation, Female Audit Committee Composition, Board Size, Financial Performance
JEL Classifications: J16, G34, G32, L25, M14

1. INTRODUCTION

Gender diversity has become a major concern in the discussion of corporate governance particularly its effect on financial performance. With multinational companies making an effort to make boards effective, their decision-making process better quality, and their management frameworks more inclusive, the structure of the corporate leadership, especially the percentage of female members, has become a major concern. Multinational companies are important to the Nigerian economy because they play a great role in creation of employment, foreign direct investment, development of infrastructures and transfer of technology. They work in the oil and gas, telecommunications, banking, and manufacturing sectors and are strategically placed to be major economic development killer. But they are often limited by the macroeconomic factors, the exchange rates, poor infrastructure as well as regulatory uncertainties. As they are strategically important, the financial performance of multinational firms has undergone increasing academic and policy interests, as it not only indicates profitability but also resiliency in the fluctuating

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economic environment (Ahmed et al., 2023; Joreme et al., 2024). Return on Capital Employed (ROCE) is one of the most holistic indicators of financial performance that evaluates the efficiency of the firm in using its equity and debt capital to produce earnings (Abubakar and Yahaya, 2024).

In contrast to return on equity (ROE) and return on assets (ROA), ROCE offers a more comprehensive view of the efficiency of the firms with reference to their overall financing structure (Abata et al., 2024; Abubakar and Yahaya, 2024). ROCE is especially useful in any capital-intensive setting in which multinational companies can be involved because it will help assess how well the managerial choices made by companies are able to strike the right balance between debt and equity and still remain profitable. The relevance of ROCE as a quality indicator of long-term sustainability and operational efficiency is validated in studies of Nigeria, and other developing economies, and thus a choice of performance measure in corporate governance studies (Srinidhi et al., 2020; Gherghina et al., 2021; Oyegoke et al., 2024). An emerging literature has been associated with the performance of firms and gender diversity which is defined as the inclusion and representation of both men and women in the leadership and governance systems in organizations.

The gender diversity is being identified as a factor that determines creativity, innovation and ethical decision-making in the boardroom (Srinidhi et al., 2020; Gherghina et al., 2021; Abubakar and Yahaya, 2024; Adebayo et al., 2025). Diversity and inclusivity are presented as key principles of governance in the Financial Reporting Council of Nigeria (2018), where the authorities anticipate that companies should enhance the role of female leaders to improve accountability, fairness, and transparency (Abata et al., 2024; Oyegoke et al., 2024; Joreme et al., 2024). The focus on gender balance is also consistent with the global standards of corporate governance that claim that the diversified boards can be better placed to address the market issues and stakeholder pressure which are complex in nature. This is operationalized through three distinct dimensions of governance that are used to address gender diversity (Oyegoke et al., 2024).

The percentage of women in boards, also known as female board representation, is claimed to enhance monitoring and decision-making quality and increase stakeholder trust (Chatterjee and Nag, 2022; Ahmed et al., 2023; Abubakar and Yahaya, 2024). The presence of female audit committee members, based on the percentage of female representatives in audit oversight functions, is associated with increased diligence, transparency, and elimination of earnings management (Srinidhi et al., 2020; Gherghina et al., 2021; Joreme et al., 2024; Adebayo et al., 2025). The total composition of boards (board size) determines the effectiveness of decision making. The size of the board can result in greater knowledge level and resources, although a very large board can lower efficiency and accountability, where again a balance has to be struck to result in optimal performance by the multinational firms in Nigeria, as reflected by ROCE.

The inclusion and diversity of strategic oversight through the presence of female boards, the increase of monitoring and reporting credibility through the presence of female audit committees and optimal board size through female board representation enhances the efficiency of governance and efficiency of decision making. According to the recent empirical studies, there is evidence that gender diversity boosts profitability, reputation on the market, and long-term growth (Ahmed et al., 2023; Abata et al., 2024; Oyegoke et al., 2024; Adebayo et al., 2025). This study hence characterizes gender diversity beyond just the social or regulatory compliance agenda to an active strategic governance mechanism that has direct implications to sustainability and financial sustainability of multinational companies in Nigeria.

1.1. Research Problem

Multinational companies in Nigeria are also significant to the economy of the country, a huge portion of the foreign direct investment, employment as well as industrial production is made by the multinational companies. Even though they are economically relevant, the financial performance of these companies has not been very stable in the last decade. According to recent reports, multinational companies in such industries as oil and gas, telecommunications, and manufacturing have reported a fluctuating profitability in response to fluctuations in exchange rates, large inflation, unpredictability of policies, and infrastructure shortages (Abubakar and Yahaya, 2024; Oyegoke et al., 2024). An example to note is the statistics by the National Bureau of Statistics (2023) which show that the payback on investment in the Nigerian manufacturing sector has fallen by more than 15% in the 2019 and 2022 fiscal years, which reflects the susceptibility of the multinationals in the capital-intensive environment.

Gender diversity is one of the governance dimensions that have become the focus of growing scholarship and integration in business practices. On an international scale, it has been revealed that boards that contain more women indicate better ethical practices, risk management, and corporate responsibility (Srinidhi et al., 2020; Gherghina et al., 2021). In Nigeria, women are however underrepresented as far as leadership roles are concerned. According to a report released by PWC Nigeria (2022), <20% of the board members of publicly listed companies are women and <10% of women are found in audit committees. This underrepresentation is accomplished in spite of the SEC Code of Corporate Governance (2018), which proposes inclusivity and diversity of the board composition. The fact that few women are in the governance roles indicates that the Nigerian multinationals are not fully utilizing the potential benefits of gender diversity on improving financial performance. Therefore, the relationship between gender diversity and financial performance is a problem that is yet to be addressed through empirical research.

The second aspect of the issue is associated with the size of the board that has a great impact on governance efficiency and decision-making. Empirical evidence presents contradictory results: Some of the studies show that bigger boards lead to increased expertise and strategic control (Ahmed et al., 2023; Abubakar and Yahaya, 2024; Oyegoke et al., 2024), but others suggest that larger boards lead to poorer coordination and slowness of decision-making, thus decreasing the performance of firms (Adetula and Oyedeko, 2023; Abata et al., 2024). In Nigeria,

multinationals tend to take bigger board sizes because of regulation demands and the necessity to embrace a variety of stakeholders, but the influence on financial performance like ROCE is obscure. As an example, Awotomilusi et al., (2023) evidence indicated that multinational corporations that had more than 12-member boards had an average of 10% lower returns on the capital employed than those with lean boards structure. This highlights the importance of studying the interaction between board size and gender diversity to determine the effect on firm performance in the Nigerian listed multinational firms.

The fact that the existence of governance structures does not necessarily lead to improved financial performance of multinational firms, this also indicates the presence of a policy-practice gap (Adetula and Oyedeko, 2023). Although the SEC Code promotes gender inclusion, the level of compliance is low and the direct effects on such financial ratios as ROCE are not developed (Abata et al., 2024). Studies have revealed a contradictory outcomes: Some of them indicated that there exist a positive correlation between the presence of female board members and the profitability of the firms (Joreme et al., 2024; Abubakar and Yahaya, 2024), whereas the study of Adetula and Oyedeko (2023) find a significant changes. In practice, MNCs are still contending with poor financial sustainability, and it is an issue of whether greater gender diversity and best board design would lead to enhanced capital efficiency and sustainable performance. This is the unresolved tension that is the main problem of the research study, whether gender diversity in all its variations (female board representation, female audit committee representation and board size) significantly influences the financial performance of multinational companies in Nigeria in terms of ROCE.

2. LITERATURE REVIEW AND HYPOTHESES FORMULATION

2.1. Conceptual Review

2.1.1. Gender diversity

Gender diversity has been viewed in a number of complementary ways. According to Srinidhi et al. (2020), gender diversity entails the equal representation of men and women in corporate boards, which makes the decision-making process to accommodate the various perspectives. Gherghina et al. (2021) have a more narrowed definition of it as active involvement of women in leadership and board membership with emphasis on the fact that their representation improves the quality of governance and performance of the entire firm. According to Chatterjee and Nag (2022), gender diversity is also described as the organisational practices that make women equally participate in managerial and executive roles, which enhance accountability and corporate sustainability. In reality, multinational corporations convert these conceptualizations into tangible governance actions containing board-level diversity quotas, diversity succession planning to hire more female candidates, mentorship programmes, disclosure of board composition, and inclusive policies of retaining female talents in a workplace (Adetula and Oyedeko, 2023; Ahmed et al., 2023). Such actions are usually supported by the control of corporate governance committees to control the progress and responsibility (Abata et al., 2024; Abubakar and Yahaya, 2024).

The gender diversity practices in this context by multinational firms represent the global regulatory pressure. As an example, studies identify that in Nigeria, multinational corporations tend to implement disclosure policies and diversity policies to align with the global best practices and, at the same time, address the needs of investors to be more inclusive in leadership (Joreme et al., 2024; Oyegoke et al., 2024). Such practices do not just widen the decision-making process but also bring about transparency, better board oversight and innovation. As a method of this research, gender diversity is operationalised into three dimensions of governance, i.e., female board representation, (the percentage of women on the board of directors); female audit committee representation, (the percentage of women on the audit committee); and overall board composition, (the board size, which influences the decision-making process and effective governance).

2.1.1.1. Female board representation

Female board representation is defined as the rate of women in corporation boards which is also proving to be a very important factor in corporate governance. It also underscores the extent that women are involved in strategic decision making, formulation and supervision of policies at the top management of an organization. Researchers state that women directors enrich the board discussions with different points of views, promote creativity, and increase the firm moral orientation (Srinidhi et al., 2020). The experience of Nigerian corporate companies has shown that female directors can make significant contributions to the enhanced performance and sustainability of the firm in the long-term as they may be much more sensitive to stakeholders and risk-conscious (Ahmed et al., 2023). Nevertheless, the opposite results have been found, especially in situations when female board members are not sufficiently represented, resulting in tokenism and inefficient participation (Adetula and Oyedeko, 2023). In a broader context, the presence of women on boards, besides the profitability of the firms, is associated with the improved image and the adherence to international standards, and thus it is in the centre of governance change.

2.1.1.2. Female audit committee representation

Female audit representation focuses on the integration of women into audit committees that are significant in controlling the financial reporting, providing transparency, and risk management. Audit committees that include women are said to be characterized by greater degrees of independence, hardworking and ethical duty, which enhances the supervisory ability of the committees (Ahmed et al., 2023). According to empirical evidence, the companies that have female individuals on their audit committees are less likely to be involved in earnings manipulation and reveal more credible and honest financial data (Gherghina et al., 2021). This has been especially applicable to multinational companies, with female members of audit committee being associated with enhanced internal controls and less financial anomalies (Oyegoke et al., 2024). However, other reports claim that the level of influence of female members of audit committees in the developing countries could be reduced by structural and cultural biases, which could

undermine their performance in practice (Adetula and Oyedeko, 2023; Joreme et al., 2024). These shortcomings notwithstanding, the rising trend of diversity still makes the inclusion of female audit committee representation as an important element of corporate governance systems.

2.1.1.3. Overall board representation (board size)

Overall board representation, which is indicated by board size, is the number of directors that are present in a corporate board and which are directly related to the level of governance efficiency and board diversity. It is also commonly held that the larger the board is, the wider is its expertise, several perspectives, and resources to oversee all aspects of strategy, whereas the smaller the board, the faster decisions may be made and the fewer coordination issues may be encountered (Gherghina et al., 2021; Chatterjee and Nag, 2022; Ahmed et al., 2023). Boards size in the gender diversity dimension is the indicator of the possibility of women to become a significant contributor as large boards are more likely to have women members (Abata et al., 2024; Abubakar and Yahaya, 2024). Nevertheless, the high number of board members can also be associated with inefficiencies, diluted responsibility, and decreased monitoring ability, which cancels the possible benefits of gender diversity (Srinidhi et al., 2020; Adetula and Oyedeko, 2023). The results of empirical studies in Nigeria and Ghana indicate that moderately sized boards that have female board members are positively correlated with a firm performance, and oversized boards are associated with governance inefficiencies (Oyegoke et al., 2024; Joreme et al., 2024). Therefore, the principle of the overall board representation lays stress on the fact that there should be some form of balance: On one hand, inclusivity and diversity should be ensured; on the other side, properly structured decision-making processes must be able to be found in multinational companies.

2.1.2. Financial performance

The multi-dimensional quality of financial performance has been captured in varying ways, which has shown the multi-dimensionality of financial performance in measurement of corporate performance. Adetula and Oyedeko (2023) termed the financial performance as the degree of maximization of the wealth of shareholders by means of the efficient allocation and management of resources. On the same note, Ahmed et al. (2023) considered financial performance as the capacity of firms to earn sustainable income and remain stable in their operations besides discharging their promises to the internal and external stakeholders. Abata et al. (2024) described it as the extent to which the corporate organizations attain profitability, solvency and long term growth during a financial period. Abubakar and Yahaya (2024) further stressed that financial performance is a significant indicator that could be used to measure the effectiveness of the governance system in enhancing the competitiveness of firms. Nigerians multinational companies have shown ambiguous tendencies in financial performance because of fluctuating exchange rates, inflation forces, inconsistency in regulations, and poor infrastructure, yet their access to worldwide markets and superior technologies tend to give them an advantage over competitors (Oyegoke et al., 2024; Joreme et al., 2024). Financial measures are applied to measure performance and include; return on assets (ROA), return on equity (ROE), earnings per share (EPS), and return on capital employed (ROCE) (Srinidhi et al., 2020; Gherghina et al., 2021). Nonetheless, this study use ROCE as the measure of choice due to its ability to include equity and debt financing in measuring profitability.

2.1.2.1. Return on capital employed

Return on capital employed (ROCE) is broadly accepted to be a broad based measure of financial performance that assesses the efficiency of a firm in terms of its overall capital, either equity or debt, to create profits. It is more than profitability ratios which merely look at the equity or assets of the shareholders, and a more holistic view of how effectively the management manages to utilize all the capital available to generate value. Adetula and Oyedeko (2023) note that ROCE is a metric that reflects the operational efficiency and sustainability of profits of a firm by comparing its earned earnings before interest and tax (EBIT) and the total amount of funds invested in the company. On the same note, Ahmed et al. (2023) pointed out that ROCE would be more applicable in situations where companies depend on a combination of both equity and borrowed funds because it portrays the productivity of the invested funds as a whole. Abata et al. (2024) further noted that ROCE is a potent measure of management performance as it shows the use of resources in the best way possible to maintain a financial increase. Today, ROCE has emerged as a relevant measure of assessing multinational firms in the Nigerian context where they have become a focus in terms of their capital intensity and yearly exposure to both the local and global financing frameworks (Abubakar and Yahaya, 2024; Oyegoke et al., 2024). The ROCE would help the stakeholders not only to evaluate profitability, but also to determine the ability of the firms to meet debt liabilities and equity capital requirements effectively, thus it is a good measure to use in this study.

2.1.3. Conceptual framework

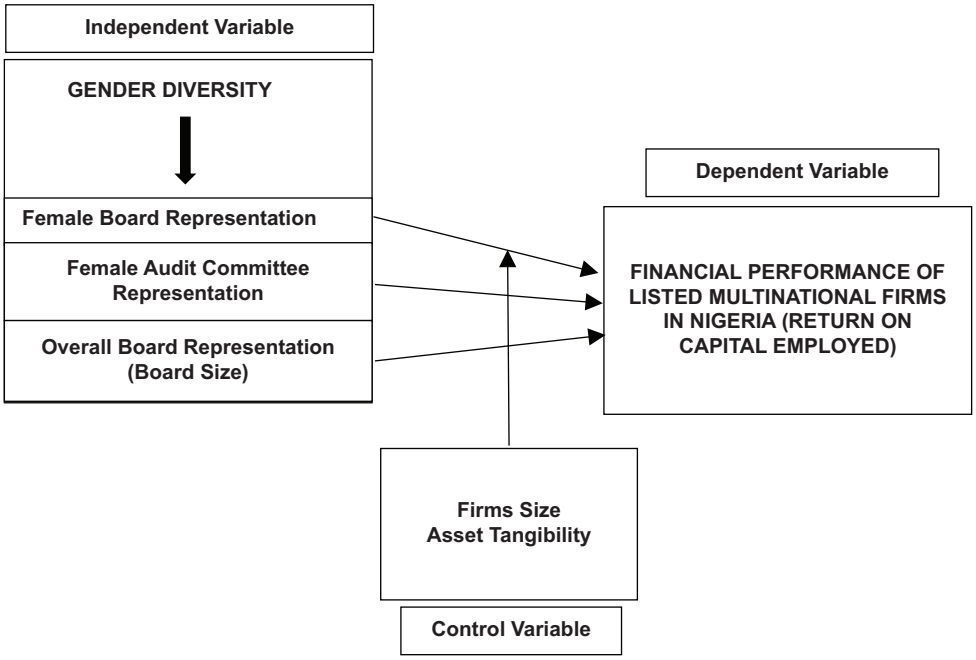
Figure 1 shows the framework presents the diagrammatical representation of the connectivity of the variables.

2.2. Theoretical Review

2.2.1. Resource dependence theory (RDT)

Resource dependence theory (RDT) was propounded by Pfeffer and Salancik in 1978 through their book "*The External Control of Organizations*: *A Resource Dependence Perspective.*" The theory is founded on the principle that organizations are not independent but they depend on external environments to get important resources to be able to survive and develop. The theory states that firms have dependencies on other actors within the environment, including the stakeholders, the regulators, the suppliers, and the society, which can regulate access to the necessary resources. Owing to this dependency, organizations are strategic to design their structures and governance systems like boards of directions to minimize uncertainty, reduce vulnerability, and be legitimate. The premises of the theory involve the concepts that survival is the chief objective of organizations, the resources are unevenly distributed and controlled outside and power in an organization is determined depending on its degree of dependence on external actors.

Figure 1: Conceptual framework



Source: Author's Design (2026)

Although useful, RDT has been criticized as too deterministic being shown as firms that react to the external constraints rather than actively construct their environments. Critics complain that the theory can occasionally downplay the importance of internal capabilities, innovation and leadership in eliminating resource dependency. Besides, within the rapidly evolving environment, dependency on the external resources might not necessarily result in vulnerability but can increase the legitimacy and long-term alliances. However, RDT is very applicable in this research since it offers a concept when discussing the effectiveness of gender diversity in boards and audit committees as a resource. The representation of females leads to different views, increases corporate legitimacy, and consequently improves monitoring and relationship with stakeholders, which may all translate to the better financial performance of multinational firms.

2.2.2. Agency theory

Agency Theory was popularized by Jensen and Meckling in 1976 in their influential article "*Theory of the Firm*: *Managerial Behavior, Agency Costs, and Ownership Structure.*" The theory underlines the principal/agent relationship where the shareholders (principals) delegate the decision-making process to the managers (agents). Due to the involvement of personal interests instead of maximizing shareholder wealth, managers are likely to create conflict of interest, which is what is referred to as agency problems. The theory is based on rationality, self-interest and information asymmetry between managers and owners. To curb these problems, principals use monitoring devices, including boards of directors, audit committees and external audits in addition to incentive systems such as performance-based compensation to factor in the actions of managers with strategic goals of the organization. They are in the form of agency costs, monitoring, bonding and residual loss.

Agency Theory has received a lot of criticism due to the extreme assumptions it makes especially on the assumption that all managers are self-serving, ignoring instances where intrinsic or ethics or stewardship guide managerial actions. It is also prone to giving excessive attention to primacy of the shareholders, giving little consideration to other stakeholders in the sustainability of the firm. Nevertheless, the theory is one of the most popular ones in the corporate governance studies. It is relevant in this research since boards and audit committees that have a mixture of genders can help in reducing agency issues. As firms incorporate women in the governance system, they strengthen oversight and accountability, and increase ethical sensitivity, decreasing the information asymmetry and managing managerial decision making with the interests of shareholders. Therefore, the Agency Theory has a solid explanation on why gender diversity has a positive impact on the financial performance of multinational companies in Nigeria.

2.3. Empirical Studies

The relevance of the gender diversity in corporate firms cannot be under rated because different empirical studies have been carried out within and outside Africa to test the independent effects of gender diversity on the sustainable growth of corporate firms. For instance, in the United States, Srinidhi et al. (2020) considered 5 US-listed corporate firms and a time series data of 12 years spanning from 2004 to 2025 to examine the contributions of female directors towards sustainable financial growth. The panel analysis result reported that female directors significantly contribute to the financial growth of the corporate firms more than male directors. Also, Gherghina et al. (2021) reported a similar finding that female on corporate boards contributes to the market-based performance of businesses in the information technology sectors. However, Chatterjee and Nag (2022) reported that the contributions of female directors on boards insignificantly improve the financial sustainability of Indian enterprises.

In 2023, Adetula and Oyedeko (2023) explored the impacts of gender diversity on the performance of listed banks in Nigeria from 2009 to 2019. Considering 5 banks, the OLS result indicated that female board members contribute negatively to the banks' performance. Ahmed et al. (2023) explore the connectivity between gender diversity, board size, and corporate firms among listed firms in Nigeria using a time series data covering a period of 12 years (2011-2021). The panel regression result showed that female directors on the board significantly contribute to the financial success of firms under consideration. Contrarily, Abata et al. (2024) reported that gender diversity covering both the female representatives in the board and audit committee negatively enhances financial performance among listed firms in Nigeria. The study considered a balanced panel data spanning from times series data spanning from 2010 to 2023.

Abubakar and Yahaya (2024) established that board gender diversity maintained a significant impact on the financial performance of publicly traded firms in Nigeria. The study used a time series dataset of 10 years (2014-2023) and regression analysis. However, in Ghana, Joreme et al. (2024) reported that gender board diversity has a negative impact on the performance of both listed and unlisted corporate firms in Ghana. This result contradicts the business argument for gender diversity in corporate firms. Also, Oyegoke et al. (2024), who focused on listed manufacturing firms in Nigeria, reported that board gender diversity significantly influences the profitability of firms under consideration between 2012 and 2022 using a panel regression analysis model.

From the reviewed studies, it was evidenced that findings on the contribution of gender diversity are mixed, while some reported a positive relationship, others reported contrary results. Also, none of the reviewed studies considered multinational firms listed on the Nigerian stock exchange using time series data spanning from 2010 to 2024. Hence, to bridge these gaps, this study was established, and the following null hypotheses were formulated:

Ho_1: Female board representation has no significant effect on the financial performance of listed multinational firms in Nigeria.

Ho_2: Female audit committee representation has no significant effect on the financial performance of listed multinational firms in Nigeria.

Ho_3: Overall board representation has no significant effect on the financial performance of listed multinational firms in Nigeria.

3. METHODOLOGY

This study adopted an *ex-post* facto research design. This design is considered appropriate for this study due to the researcher's accessibility to well-established panel secondary data from reliable sources. The population consisted of all 78 multinational firms listed on the Nigerian Exchange Group (NGX) as of 2025. These multinational firms cut across sectors such as manufacturing, telecommunications, banking, oil and gas, and consumer goods. Purposively, the study sampled 10 firms. The firms were selected because they met specific criteria that align with the research objectives. These criteria included significant foreign equity participation, multinational or cross-border operations, sectoral diversity to capture different ownership dynamics, and availability of consistent and audited financial reports covering the period 2010-2024. These firms are Dangote Cement Plc, Nestlé Nigeria Plc, Unilever Nigeria Plc, MTN Nigeria Communications Plc, Airtel Africa Plc, Stanbic IBTC Holdings Plc, GlaxoSmithKline Consumer Nigeria Plc, Julius Berger Nigeria Plc, Seplat Energy Plc and FBN Holdings Plc.

The study adapted the model of Abata et al. (2023) who investigated the nexus between gender diversity and corporate financial performance of listed consumer and industrial goods firms in Nigeria. The linear representation of the model is:

$$AER_{it} = \beta_0 + \beta_1 FEMAUDCOM_{it} + \beta_2 FEMBOREP_{it} + \beta_3 BSIZE_{it} + \beta_4 LEV_{it} + \beta_5 FSIZE_{it} + e \ldots \quad 3.1$$

Where:
AER = Asset efficiency ratio
FEMAUDCOM = Female audit committee
FEMBOREP = Female board representation
BSIZE = Board size
LEV = Leverage
FSIZE = Firms size
e = error term
i = Firms
t = Time
β_1-β_5 = Coefficient.

However, some modifications were made to the model. Firstly, the outcome variable was replaced with return on capital employed, while leverage was replaced with asset tangibility. Therefore, the modified model is presented below:

$$ROCE_{it} = f(FEMAUDCOM_{it}, FEMBOREP_{it}, BSIZE_{it}, AST_{it}, FSIZE_{it}) \ldots \quad 3.1$$

S/n	Variable	Status	Measurement	A priori expectation
1	Return on capital employed (ROCE)	Dependent	Earnings before interest and Tax (EBIT) ÷ Capital Employed×100	
2	Female audit committee (FEMAUDCOM)	Independent	Number of females on board÷the total number of board members	Positive
3	Female board representation (FEMBOREP)	Independent	Number of females on the audit committee÷the total number of audit committee members	Positive
4	Overall board size (BSIZE)	Independent	Total number of directors on the board	Positive
5	Asset tangibility (AST)	Control	Fixed assets÷total assets	Positive
6	Firms' size (FSIZE)	Control	Natural log of total assets	Positive

Source: Authors' compilation (2026)

Table 1: Descriptive statistics analysis result

Variable	Mean	Standard deviation	Min	Max	Skewness	Kurtosis	Observations
ROCE	12.345	4.21	3.5	25.6	0.89	2.98	150
FEMAUDCOM	0.32	0.15	0	0.6	0.45	2.1	150
FEMBOREP	0.28	0.13	0	0.55	0.5	2.25	150
BSIZE	9.5	2.1	5	15	0.2	2.5	150
AST	0.48	0.18	0.1	0.85	0.05	2.02	150
FSIZE (log)	8.25	0.75	6.2	10.5	0.12	2.3	150

Source: Authors' computation (2026)

$$ROCE_{it} = \beta_0 + \beta_1 FEMAUDCOM_{it} + \beta_2 FEMBOREP_{it} + \beta_3 BSIZE_{it} + \beta_4 AST_{it} + \beta_5 FSIZE_{it} + e \ldots\ldots\ldots \quad 3.2$$

Where:
ROCE = Return on capital employed
FEMAUDCOM = Female audit committee
FEMBOREP = Female board representation
BSIZE = Board size
AST = Asset tangibility
FSIZE = Firms' size
e = error term
i = Firms
t = Time
β_1-β_5 = Coefficient.

3.1. Variables Measurement and Definitions

The study adopted both descriptive and inferential statistics. The descriptive statistics metrics include the mean, standard deviation, maximum, minimum, skewness, and kurtosis, while the inferential statistics include the Pearson correlation analysis, unit root test, panel regression estimation models, and diagnostic tests.

4. RESULTS AND DISCUSSION

4.1. Results

4.1.1. Descriptive statistics

Table 1 presents the summary statistics of the variables used in the study. The dependent variable, Return on Capital Employed (ROCE), has a mean value of 12.345 with a standard deviation of 4.21, indicating that, on average, firms generate about 12.3% return on capital employed with moderate variations across the sampled firms. The minimum and maximum of 3.5 and 25.6 respectively indicate a great disparity in performance of firms. The positive skew (0.89) indicates a slight concentration of lower-returning firms, whereas the kurtosis of 2.98 which is almost the normal distribution benchmark of 3 indicates a fairly normal distribution of ROCE. In terms of the board gender composition, Female Audit Committee (FEMBOREP) has a mean of 0.28 which gives the impression that women constitute about 28% of the total board members whereas Female Board Representation (FEMBOREP) has a mean of 0.32 implying that women are about The two variables are reasonably dispersed (standard deviation of 0.15 and 0.13, respectively), and the values of skewness (0.45 and 0.50, respectively) confirm a slightly right skewed distribution, which is expected in typical corporate governance. Board size (BSIZE) has an average value of 9.5 members and its values fall between 5 and 15 as well. The skewness (0.2) and kurtosis (2.5) suggest that the size of the boards is well balanced and has a fairly normal distribution. Asset tangibility (AST) indicates an average value of 0.48 implying that tangible assets on average constitute 48 percent of the total assets of firms. The skewness (0.05) is relatively low implying that the center of the distribution is nearly symmetric, whereas kurtosis (2.02) depicts that the distribution is a little flatter than normal. Finally, Firm Size (FSIZE) which is the logarithm of total assets has a mean of 8.25, minimum of 6.2 and maximum of 10.5. The low skewness value (0.12) and the kurtosis value (2.3) are also indicative of a near normal distribution.

4.1.2. Pearson correlation analysis

Table 2 indicates the correlation coefficients between the variables used in the study. The findings provide evidence that all the independent variables positively correlate with return on capital employed (ROCE). In particular, Firms Size (FSIZE) is positively correlated with ROCE with the highest correlation (0.401), which indicates larger firms are likely to have a better ROCE on capital used. On the same note, Female Audit Committee (FEMAUDCOM) and Female Board Representation (FEMBOREP) are positively correlated with ROCE (0.312 and 0.298), respectively, suggesting that an increase in female representation in corporate governance could lead to more successful performance of firms. Asset Tangibility (AST) is also positively correlated with ROCE (0.276), indicating that companies with more tangible assets are going to report higher rates of profitability and board size (BSIZE) has the least positive association (0.145) which denotes that it does not have a significant direct impact on the returns of firms. When the independent variables, FEMAUDCOM and FEMBOREP are analysed, FEMAUDCOM and FEMBOREP are moderately related (0.435) as expected because both of them reflect the female representation in governance. The correlation however is less than the multicollinearity threshold (0.8), which means that the two can be included in the regression model without any worrying. The other correlation coefficients between board size, asset tangibility and firm size are found to be within a 0.05-0.35 and these indicate weak-moderate correlations and further attest to the non-existence of multicollinearity problems.

4.1.3. Variance inflation factor

Table 3 presents the diagnostic test for multicollinearity among the explanatory variables used in the model. The results show that the variance inflation factor (VIF) values for all variables range between 1.142 (BSIZE) and 1.347 (FEMBOREP), with a mean VIF of 1.249. Correspondingly, the tolerance values fall between 0.743 and 0.876, all of which are comfortably above the conventional cut-off value of 0.2. Since none of the VIF values exceeds the critical threshold of 10, and tolerance values remain high, the results clearly indicate that the model is free from multicollinearity problems.

Table 2: Pearson correlation analysis result

Variable	ROCE	FEMAUDCOM	FEMBOREP	BSIZE	AST	FSIZE
ROCE	1	0.312	0.298	0.145	0.276	0.401
FEMAUDCOM	0.312	1	0.435	0.21	0.05	0.12
FEMBOREP	0.298	0.435	1	0.185	0.065	0.11
BSIZE	0.145	0.21	0.185	1	0.3	0.225
AST	0.276	0.05	0.065	0.3	1	0.35
FSIZE	0.401	0.12	0.11	0.225	0.35	1

Source: Authors' computation (2026)

Table 3: Variance inflation factor result

Variable	VIF	Tolerance
FEMAUDCOM	1.235	0.81
FEMBOREP	1.347	0.743
BSIZE	1.142	0.876
AST	1.21	0.827
FSIZE	1.312	0.762
Mean VIF	1.249	–

Source: Authors' computation (2026)

4.1.4. Unit root test

Table 4 reports the stationarity properties of the variables employed in the study using the augmented Dickey-Fuller (ADF) test. The results reveal that return on capital employed (ROCE) is non-stationary at level (P = 0.135) but becomes stationary after first differencing (P = 0.0000), indicating an integration order of I(1). Similarly, Asset Tangibility (AST) is stationary only after first differencing (P = 0.0000), suggesting that it is also integrated of order I(1).On the other hand, female audit committee (FEMAUDCOM), female board representation (FEMBOREP), and Board Size (BSIZE) are all stationary at level, with significant P = 0.0085, 0.0022, and 0.0009, respectively. This indicates that these governance variables are integrated of order zero, I(0). The mixture of I(0) and I(1) variables confirms that the dataset is suitable for panel regression techniques that can accommodate such integration orders, such as the Panel ARDL or PMG estimators. More importantly, the absence of I(2) variables means the model avoids spurious regression concerns and ensures valid long-run and short-run inferences. This finding also highlights that while firm performance and asset structure evolve dynamically over time, governance attributes such as female representation and board size are relatively stable.

4.1.5. Panel regression estimation

$$ROCE_{it} = \beta_0 + \beta_1 FEMAUDCOM_{it} + \beta_2 FEMBOREP_{it} + \beta_3 BSIZE_{it} + \beta_4 AST_{it} + \beta_5 FSIZE_{it} + e$$

Table 5 report based on the Hausman test was conducted to determine whether the fixed effects (FE) or random effects (RE) model is more appropriate. The test result yields a Chi-square statistic of 1.374 with a probability value of 0.926, which is greater than the 5% significance level. This suggests that the random effects (RE) model is preferred over the Fixed Effects model. Similarly, the Breusch-Pagan LM test supports the choice of the Random Effects model with a chi-square statistic of 2.542 and a probability value of 0.111, indicating that random effects are appropriate. The Modified Wald test for heteroskedasticity and the Wooldridge test for autocorrelation suggest that heteroskedasticity and autocorrelation are not serious concerns in the dataset, with probability values of 0.142 and 0.134, respectively. The Pesaran CD test for cross-sectional dependence also indicates that cross-sectional dependence is not a major concern.

The random effect estimations revealed:

i. Female audit committee (FEMAUDCOM) has a positive and significant effect on firm performance (ROCE) to the tune of 0.193 (P = 0.041 < 0.05).
ii. Female board representation (FEMBOREP) has a positive and significant effect on firm performance (ROCE) to the tune of 0.240 (P = 0.036 < 0.05).
iii. Board Size (BSIZE) has a negative but insignificant effect on firm performance (ROCE) to the tune of −0.072 (P = 0.485 > 0.05).

4.2. Discussion of Findings

In this study, it was determined that female audit committee positively and statistically significantly impacts the financial performance of multinational firms in Nigeria by the value of 0.193 (P = 0.041 < 0.05) on the mean. This means that as the female audit committee increases by 1%, the financial performance in terms of the return on the capital employed of the listed multinational companies in Nigeria would grow by 19% at a significant level. This may be explained by the fact that the female directors and committee members tend to introduce diversity of the thought, better monitoring, and ethical needs to the work of the board, which all contribute to the better performance of the firm. This finding is consistent with that of Srinidhi et al. (2020), Gherghina (2021), Ahmed et al. (2023), Abubakar and Yahaya (2024), and Oyegoke et al. (2024) that all found a positive impact of gender diversity on firm performance. Nevertheless, the inconsistence of findings of Adetula and Oyedeko (2023), Abata et al. (2024), and Joreme et al. (2024) can indicate that the influence of gender diversity is context-specific and varies according to cultural, institutional, and sectoral differences in various regions.

The result of the analysis further demonstrated that female representation on boards affects the financial performance of multinational firms in Nigeria in a significantly positive manner of 0.240 (P = 0.036 < 0.05). Implicitly, this would mean that a higher percentage of female representation in boards would stimulate a substantial growth in the financial performance of multinational companies. The reason is that female directors tend to introduce new insights, creative problem solving ability, enhanced decision-making, and heightened moral awareness to the boardroom, and this leads to the quality of

Table 4: ADF unit root test

Variable	Level		First difference		Order of integration
	Test statistic	P-value	Test statistic	P-value	
ROCE	1.48211	0.135	5.76342	0.0000***	I (1)
FEMAUDCOM	2.64239	0.0085**	–	–	I (0)
FEMBOREP	2.97314	0.0022**	–	–	I (0)
BSIZE	3.41128	0.0009***	–	–	I (0)
AST	1.27684	0.1124	6.14527	0.0000***	I (1)

Source: Authors' computation (2026)

Table 5: Results of panel regression estimate and diagnostic tests

	Dependent variable: ROCE		
Variables	(1) ordinary least squares	(2) fixed effect estimate	(3) random effect estimate
FEMAUDCOM	0.142 (0.215)	0.215** (0.034)	0.193** (0.041)
FEMBOREP	0.265** (0.022)	0.198 (0.118)	0.240** (0.036)
BSIZE	−0.081 (0.443)	−0.065 (0.526)	−0.072 (0.485)
AST	0.312*** (0.001)	0.287** (0.047)	0.298*** (0.009)
FSIZE	0.098 (0.162)	0.121 (0.129)	0.107 (0.151)
Constant	5.102*** (0.000)	4.854*** (0.000)	5.011*** (0.000)
Observations	150	150	150
R-squared	0.621	0.598	0.576
Adj. R-squared	0.587	0.562	0.543
F-Stat/Chi^2	F=19.342, Prob>F= 0.0000	F=10.451, Prob>F= 0.000	Wald Chi^2 (5)=21.672, Prob>Chi^2=0.000
Pesaran CD test	–	1.207 {0.228}	–
Hausman test	–	–	Chi^2 (5)=1.374, Prob>Chi^2=0.926
Breusch-Pagan LM Test	–	–	Chi^2 (1)=2.542, Prob>Chi^2=0.111
Modified Wald test for Heteroskedasticity	–	Chi^2 (10)=512.28, Prob>Chi^2=0.142	–
Wooldridge test for autocorrelation	–	F (1,9)=2.631, Prob>F = 0.134	–

Source: Authors' Computation (2026). Where: ROCE: Return on capital employed, FEMAUDCOM: Female audit committee, FEMBOREP: Female board representation, BSIZE: Board size, AST: Asset tangibility, FSIZE: Firms' size

corporate governance and, thus, performance of the firm. The result aligns with Srinidhi et al. (2020) who reported that female directors in US-listed companies have a significant involvement in sustainable business financial growth, and Gherghine et al. (2021) who pointed out women-diverse boards have a favourable influence on market-based business performance in the IT industry. In Nigeria, Ahmed et al. (2023) noted that women in boards are major contributors to success in the financial performance of listed companies whereas Oyegoke et al. (2024) observed gender diversity in boards to be a contributor to the return in profits of listed manufacturing companies. On the same note, Abubakar and Yahaya (2024) affirmed that female representation in the board has a positive and meaningful impact on the financial performance of listed Nigerian companies. Nevertheless, this finding conflicts with the results of Adetula and Oyedeko (2023) who found that female board members have a negative impact on the performance of listed banks in Nigeria, Chatterjee and Nag (2022), who have found that the contribution of female directors only has an insignificant impact on financial sustainability of Indian enterprises.

Also, the analysis result showed that board size negatively and insignificantly influences the financial performance of multinational companies in Nigeria at the level of 0.240 ($P = 0.036 < 0.05$). The reason is that excessively big boards are usually prone to such issues as difficulty in coordinating, slower decision making, lower efficiency as well as free-riding by directors; such issues translate to undermine monitoring effectiveness and erode accountability. This result can be compared to the first author, Yermack (1996), who stated that smaller boards work better towards enhancing firm value, and more recently, Abata et al. (2024) who noted that larger boards have an adverse effect on the financial performance of Nigeria listed companies. Likewise, Chatterjee and Nag (2022) demonstrated that Indian enterprises do not experience sustainability improvement with board expansion, which is, in part, attributed to bureaucracies. The insignificance in the research, however, indicates that, though bigger boards can bring governance inefficiency, multinational firms in Nigeria can overcome the possible negative impact using expertise diversity and sub-committee networks. This view is supported in Ahmed et al. (2023) who indicated that even though there is negative relationship between board size and firm performance, the size of the relationship is usually smaller in firms where the diversity of knowledge is well utilized.

5. CONCLUSION AND RECOMMENDATIONS

The results indicated that female audit committee representation and female board representation have a large positive impact on the financial performance, thereby demonstrating the contribution

of women in COBIT enhancement of the performance through governance and decision making. On the other hand, the negative, but insignificant impact was observed on board size, which suggests that excessively large boards can lead to coordination inefficiencies with little advantageous effects. Asset tangibility was found to be a dominating source of financial performance and the firm size was a positive but insignificant factor. On the basis of these findings, this study came up with the following conclusions: gender diversity positively and statistically significantly impacts financial performance of multinational firms in Nigeria hence the following recommendations are made:

i. Multinational firms should adopt deliberate policies to increase the inclusion of women in decision-making positions, as this has been shown to significantly enhance financial performance through improved oversight, accountability, and diversity of perspectives.
ii. Firms should avoid excessively large boards, as this may lead to inefficiencies and coordination challenges. Instead, boards should be structured to balance expertise and diversity with effectiveness in decision-making.
iii. As asset tangibility is a major driver of the financial performance, companies must be strategic in managing and investing in tangible assets and ensure that the role of the female participation in the governance systems augments proper utilization of the resources.

REFERENCES

Abata, M.A., Benson, R.O., Omoregbee, G. (2023), Corporate social responsibility disclosures and performance of listed Nigerian money deposit banks. International Journal of Innovative Research in Accounting and Sustainability, 8(3), 70-81.

Abata, M.A., Salami, O.T., Olatunji, S.O. (2024), Gender diversity and financial performance of listed firms in Nigeria. International Journal of Finance and Accounting Research, 6(2), 45-59.

Abubakar, S., Yahaya, H. (2024), Board gender diversity and financial performance of publicly traded firms in Nigeria. Journal of Contemporary Accounting and Finance, 12(1), 88-104.

Adebayo, I.A., Bojuwon. M., Babajide, O.O., Osundare, I.O. (2025), Effect of audit committee characteristics on the sustainable performance of deposit money banks in Nigeria: A mediating role of gender diversity (2000-2024). Gender and Behaviour, 23(3), 23970-23982.

Adetula, D.T., Oyedeko, O.F. (2023), Gender diversity and performance of listed banks in Nigeria. Nigerian Journal of Business and Management Studies, 9(3), 77-92.

Ahmed, K., Musa, A., Bello, R. (2023), Gender diversity, board size, and corporate performance among listed firms in Nigeria. African Journal of Management Research, 15(4), 120-136.

Awotomilusi, N.S., Adewara, Y.M., Dagunduro, M.E., Falana, G.A. (2023), Evaluation of board characteristics and financial performance of listed multinational firms in Nigeria. FUOYE Journal of Accounting and Management, 6(1), 14-36.

Chatterjee, A., Nag, T. (2022), Gender diversity and financial sustainability of Indian enterprises. Asian Journal of Business and Economic Studies, 29(1), 55-71.

Gherghina, Ș. C. (2021), Corporate finance. Journal of Risk and Financial Management, 14(2), Article 44.

Gherghina, S.C., Simionescu, L.N., Hudea, O.S. (2021), Board gender diversity and firm performance in the IT sector: Evidence from European companies. Journal of Business Economics and Management, 22(3), 817-835.

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

Joreme, A., Koomson, I., Agyapong, D. (2024), Board gender diversity and financial performance of corporate firms in Ghana. Ghanaian Journal of Economic and Management Studies, 18(1), 101-119.

Nigerian Exchange Group Plc. (2024), Integrated annual report and accounts 2024. Nigerian Exchange Group Plc. Available from: https://ngxgroup.com/ngx-download/ngx-annual-report-2024/ [Last accessed on 2026 Jun 24].

Oyegoke, A.O., Adeyemi, K.S., Fadare, A.O. (2024), Gender diversity and profitability of listed manufacturing firms in Nigeria. Journal of African Business and Management, 14(2), 64-82.

Pfeffer, J., Salancik, G.R. (1978), The External Control of Organizations: A Resource Dependence Perspective. New York: Harper and Row.

Srinidhi, B., Gul, F.A., Tsui, J. (2020), Female directors and financial performance: Evidence from U.S. Firms. Journal of International Accounting Research, 19(4), 23-41.

Yermack, D. (1996), Higher market valuation of companies with a small board of directors. Journal of Financial Economics, 40(2), 185-211.