

The Corporate Board Diversity and the Financial Performance of Insurance Firm in Nigeria

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Abstract

The purpose of this study was to investigate corporate board diversity and financial performance of listed non-financial firms in Nigeria. The population of the study consists of all the listed non-financial firms in Nigeria. The Taro Yamane method was used to select a sample of eighty-eight (88) different companies and data collection took place between the years 2015 and 2020. In order to carry out the data analysis, both a descriptive analysis, which consisted of descriptive statistics. Correlation statistics, and an inferential analysis, which consisted of panel least squares, fixed effect, pooled data, and system general method of moment estimation methods, were utilized. The findings that were obtained from the analysis indicated that the reputational capital of board directors had a significant and positive effect on the financial performance of listed firms in Nigeria. Interlocking board membership exerted a negative effect financial performance of listed firms in Nigeria. The research concludes that in order to positively influence the effective management and financial performance of listed firms in Nigeria. Hence, there is a need for businesses to encourage adequate interlocking members who have a variety of professional training, a high social net worth, and experience

1.0 Introduction

The collapse and financial scandals of companies such as Enron, (US) WorldCom, Parmalat, (Italy), Nortel, (Canada), Onetel (Australia), Lehman Brother and Merrill Lynch, American International Group (AIG), Oceanic and Intercontinental banks (Nigeria) locally and internationally have continued to elicit the need to assess the implication of having diversities in corporate board among listed firms (Ogbeide & Osarobo, 2021). Diversity may be described as the differences in board composition, and often takes two forms, demographic, cognitive and structural diversities. Demographic diversity mainly consists of board gender diversity, board nationality, board ethnic diversity, board interlocks and board of director political connection (Aliani & Zarai 2017).

Foreign board members, be they men or women could have multiple seats across varying companies. Multiple directorships are interchangeably used as interlocking board membership or over boardedness (Mans-Kemp et al., 2020). Companies do allow directors to occupy multiple seats perhaps because of the financial expertise, accounting and managerial wizardry, wealth of experiences; social network worth they have and other invaluable

impacts they bring to influence financial and non- financial performances. Thus, the implication of board interlocks cannot be over emphasized. Wide researches over the years by some scholars have identified board interlock as a principal conduit for dissemination of innovations and business practices in the ever dynamic corporate world (Ogbeide&Okpamen, 2021)

Cognitive diversities purely concentrate on non-observable and intangible attributes of directors in corporate boards. Cognitive diversities consist of attitudes, values and beliefs such as reputational capital of directors, board director religion and board director attitudes to risk (Manita et al., 2023; Arioglu.,2021). Cognitive diversities are normative characteristics of individual board of directors. Given the prevailing economic challenges adversely affecting businesses globally with Nigeria inclusive, no company may thrive successfully without reputational capital of directors(Jackson, 2008; Okpamen&Ogbeide, 2021). In the past two decades, reputation has become the most important corporate value expected of directors by shareholders and other stakeholders to promote the operational and financial performance of companies. Concern for reputation capital makes the board of directors to behave ethically in a way and manner that is in the interest of shareholders and other stakeholders (Okpamen&Ogbeide, 2021)

Reputational capital of board of directors tends to boosts their sense of responsibility as well as their specialized knowledge which in turn enhances their professional judgment about the operational and financial performances of firms Marquez-Cardenas at al., 2022 Thus, reputational capital of directorship is a powerful means of mitigating agency problem and costs in firms. Through it, directors avoid the tendency to engage in rent extraction and thus enhance the firm value.

2.0 Statement of Problem

Board members occupying seats in different company results to interlocking board membership. The relationship between interlocking board membership and firms' performance is long debated in the management literature. In the Nigeria context, a lot of demands are made on directors who are reckoned with high profile managerial inept and ability to manage and positively influence a company's operational and financial performances. So, the tendency that some exceptional board directors can function simultaneously in different Nigeria's companies is likely. An aspect that has not caught researchers' attention is the number of board interlocks in Nigerian companies and their effects on the operational and financial performances.

Interestingly, the association between board director reputation capital and firm financial performance has been relatively investigated in developed countries;(Chijoke-Mgbame et al., 2020; Liu et al., 2020; Brahma et al., 2021). The empirical assessment of the contribution of board of director reputational capital towards company financial performance in developing countries like Nigeria is yet to attract researchers' attention considerably.It is against this back drop, this study examines corporate board diversity and financial performance of listed firms in Nigeria.

3.0 Objectives of the Study

The aim of this study is to examine the impact of corporate board gender diversity on the financial performance of listed firms' in Nigeria. However, the specific objectives are to:

- i. Investigate if interlocking board membership influence firms' financial performance;
- ii. Examine if board of director reputational capital impact on firms' financial performance

4.0 Research Questions

This study would address the following research questions:

- i. Does interlocking board membership influence firms' financial performance?
- ii. Does board of director reputational capital impact on firms' financial performance?

Research Hypothesis

The following hypotheses stated in the null form shall be tested in this study.

Ho1: Interlocking board membership does not have significant influence on firms' financial performance

Ho2: Board of director reputational does not have significant impact on firms' financial performance.

5.0 Literature Review

5.1 Concept of Board of Director Reputational Capital

Board of directors is saddled with the responsibility of managing the resources of the owners – shareholders. They are expected to demonstrate competence, professionalism and integrity in the discharge of their assigned onerous duties so as to maximize the wealth of the shareholders and satisfy interest of other stakeholders in the business environments (Okpamen&Ogbeide, 2020). One of the fundamental factors usually considered when appointing a director to a firms' board apart from level of education, financial skills and years of experience is integrity. Integrity is necessary at effectuating fiduciary duty by board members. Integrity is a social intangible capital which has spiral positive effects in the company. In the light of dynamism in corporate world, integrity on the part of board of directors may be regarded as a reputational capital (Okpamen&Ogbeide, 2020, Okpamen&Ogbeide, 2021).

To protect their own reputational capital, as noted by Okpamen&Ogbeide (2021) board of directors do ensure adherence to quality accounting information disclosure, and ethical standards and also demand optimal performance with a view to attaining the goal of maximizing the wealth of the shareholders and other stakeholders at large. So, with the increase in reputation capital by the board of directors, there is the likelihood of optimal performance demand by them. The board of directors is often vehement in demanding

additional external assurance on financial statements if they are skewed at protecting their reputational capital. Similarly, the board of directors in order to protect their reputation may choose the good performance of the company.

In the literature, two prominent measures of reputational capital of directorships are the number of directorships directors possess and the total compensation that directors earn from their directorships (Fredriksson et al., 2020; Okpamen&Ogbeide, 2021). Nonetheless these measures, reputational capital of directorship are a powerful means of mitigating agency problems and costs in firms (Guping et al, 2020). Through it, directors avoid the tendency to engage in rent extraction and thus enhance the firms' value. Concerns for reputation by directors make them engage in internal monitoring and assurance of smooth operation of firms. Reputation concerns affect the strategic choices of companies, directors, auditors, and financial analysts, motivating them to generate future rents (Ejimid et al., 2021). The reputational capital of a director is valuable not only as a competitive advantage but also as collateral that costs if promises are not kept. According to Okpamen&Ogbeide (2021) Reputation of directors as collateral provides the directors with an incentive to control the fraudulent behaviour of the management (Okpamen&Ogbeide, 2021).

5.2 Concept of Interlocking Board Membership

A board of directors with high integrity is usually sought in various multinational companies worldwide. This engenders them to have multiple directorships in companies skewed for optimal results. Multiple directorships are interchangeably used as interlocking board membership or beardedness. Occupying multiple seats in high-ranking companies by directors is often a result of their financial expertise, accounting and wealth of experiences; social network worth, and other invaluable impact they bring (AlQudah et al., 2019). Board of directors having multiple seats in different companies gives them prestige and substantial remuneration but the potential adverse effect of is reputational damage, no or poor time commitment resulting to the inability to effectuate duties accompanying each board responsibility, insufficient meeting attendance and to add, limited monitoring ability (Katz & McIntosh, 2016)

The potential benefits accruable from interlocking board membership in firms' are reflected in experience hypothesis (theory) while the potential adverse effects are buttressed in the busyness hypothesis (theory) in literature (Oehmichen et al., 2017). Balancing these two opposing sides to multiple directorships (interlocking board membership) so as to achieve best desired expectations, via-a-viz optimal performance and quality of financial report in firms' is quite arduous (Mans-Kemp et al., 2018) The potential adverse side of interlocking board membership sometimes makes firms' undermine the benefit sides of it. This tends to decrease multiple directorship policy initiation in most companies around the globe (Oehmichen et al., 2017).

In the context of the emerging market of Nigeria, policy favoring interlocking board membership despite its positive attendant effects in companies does not exist to the best of the researcher's knowledge. Interlocking board membership by its characteristics involves

directors having multiple seats who may be from other countries, race, ethnic, religion, gender, among others (Ogbeide et al., 2021). Irrespective of the positive effect the multiple directors may seek to bring on the board and the company at large, segregation and personality bias from domestic members cannot be over looked. This should adversely affect the firms in terms of expected results weaken the monitoring and oversight function.

5.3 Performance

Performance of a business is of utmost concern to shareholders and stakeholders generally. Performance plays the role of indicating the efficient management of a business, assuring the resource owners of return on investment, increase in the market value, enhancing the growth of the industry and ultimately the overall health of the larger economy (Ongore&K'obonyo, 2011). The performance of a company reflects management effectiveness and efficiency in making use of the resources and this in turn contributes to the country's economy at large. Literarily, performance may be seen as a direct result of an activity (Ongore&K'obonyo, 2011; Egbunike&Okerekeoti, 2018)

The outcome of activity(s) in the business is measured using a chosen performance indicator. The selected performance indicator is however based on the nature and type of business organization being investigated as well as the primary aim for consideration. Over the years, scholars and researchers have pointed out the need to embrace multiple criteria analysis to assess financial performance of firms. This multidimensional assessment of performance connotes that different pattern of relationship between corporate financial performance and its determinants have to emerge in order to astutely demonstrate the various sets of association between outcome and explanatory variables in the estimated models (Florackis et al., 2015).

Financial performance is concerned with the measurement of the results of company's strategies, policies and operations in monetary values (Gatuhu, 2013; Effiong&Ejabu, 2020).The performance of firms may be classified into firms and market based performance (Al-Matari et al., 2014). Firms' performance is a reflection of the effective expense management and strategies of the directors and other management committee. Firms' performance is commonly reflected in financial ratios analysis such as gross profit margin, net profit margin, profit before interest and tax, profit before tax and profit after tax.

In the context of this study, financial performance is specifically captured with both market based performance and firms' based financial performance indicators. Firms' based financial performance indicators used in this study are the return on equity (ROE) and return on assets (ROA). Although these indicators aptly connote profitability and growth in earnings of a company, they however have individual based implications differential. Principally, return on equity (ROE), shows the extent to which companies manage their own capital (net worth) effectively. According to Ang (2001), the higher the ROE, the tendency is increase in the profit growth. So, return on equity (ROE) indicates the profitability of owners' capital, often referred to as business profitability (Heikal et al., 2013; Setyabudi, 2021).

6.0 Empirical Review

6.1 Interlocking Board Membership and Firms' Financial Performance

Peng et al. (2015) investigated board interlocks and corporate performance among Chinese firms listed in Hong Kong between 1990 and 2012. The findings made indicate that network centrality and certain types of interlocks help to improve performance, however with varying degrees. Given that the relationship between strategic networks (board interlocks) and performance are inconclusive, there is a need for more empirical investigation to ascertain how board interlocks influence organizations' performance. If interlocking is a successful method of cooptation, all things being equal, heavily interlocked companies should perform more profitably than less interlocked firms. However, empirical evidence on this proposition around the world is ambiguous. While some researchers have argued for the abandonment of interlocks on firms' financial performance because performance is dependent on a lot of other observable and non-observable variables. Some canvass for the use of board interlock variables to examine operational and financial performance with assertive theoretical supports. Interlocking directorates could be vertical or horizontal in firms. Interlocking directorate is where the directors sitting in parent firms also sit in group affiliated firms' and this often occurs because of intra-group resource sharing. This type of interlocking is more useful in diversified businesses. Horizontal interlocks occur in an undiversified firms.

Ahmad (2017) investigated interlocking directorates and financial performance in Pakistani Business Groups from 2011 to 2015 for a sample of 55 public limited companies. Panel regression method was used to analyze the data. The finding indicates that vertical interlocking directors increase the performance of group firms by supporting in coordination and promotion of transactions between group members firms and holding firm. Interlocking board membership is negatively correlated with performance of firms; the poorly performing firms are more likely to interlock directors on their board and market reacts on the announcement of appointment of directors that create interlocks.

Ogbeide et al. (2021) examined interlocking board membership and financial performance of listed Nigerian firms. Systematic random sampling was used to select 50 listed non-financial firms. Descriptive statistics, correlation matrix, and general method of moment (GMM) were used to analyze 2007–2018 data. Returns on equity's one-lag value is statistically significant and positively correlated with firms' financial performance. IBM's interlocking board membership hurt financial performance. Board size had a positive effect on firm performance, suggesting that large boards cause decision-making conflicts and may affect financial performance. In the reference period, firm size was positive and significant on the firm performance. Board interlocks under the upper echelon theory, regardless of board size, drive corporate financial performance in Nigeria.

6.2 Board Reputational Capital and Firms' Financial Performance

Good reputation is an enduring asset to a firms' in these days of corporate dynamism. Researchers over the years have continued to express concern on the need for reputation adherence in companies by board of directors (Okpamen&Ogbeide, 2020). Reputation is an intangible asset and it is currently being researched as a source of sustainable advantages and performance in corporate organizations. In today's corporate world, what is being refers to as brand equity is in essence the corporate reputation.⁸⁸

Nguyen et al. (2017) sought to investigate if human capital of board directors adds value to firms' in Asian market. The dynamic system generalized method of moments (system GMM) estimator was employed to analyze the panel data-set consisting of 315 firm- year observation over a four- year period from 2008 to 2011. The findings indicate that human capital of director, otherwise refers to board of director reputational capital have positive influence upon the firms' financial performance in Vietnam.

Owolabi et al. (2021) worked on board diversity and financial performance of quoted firms in Nigeria. The purpose of this study is to examine the relationship between board diversity variables and the financial performance of Nigeria's cited manufacturers. The board diversity variables used were board independence, board gender diversity, and board size, financial performance was measured by after-tax profit, and company size was a control variable. The study extracted data from the financial statements of 10 Nigerian citations. The data were analyzed using post-hoc estimation tests such as the restricted F-test and Hausmann test, as well as correlation and panel regression analysis including random effects, fixed effects, and pooled OLS. As a result, board independence, board gender diversity, and board size have a positive impact on the after-tax profits of selected listed companies in Nigeria, but with little impact.

In a study by Ahmad et al. (2021) on the impact of corporate governance practices on the firm financial performance of the nonfinancial firms. The study focuses on whether the Corporate Governance characteristics influence the firm performance of Non-Financial Firms in Pakistan. In this study, three types of industries like pharmaceutical, cement, and food were analyzed from the Pakistan Stock Exchange for the period of 2010 to 2019. The authors used the diagnostic test on data that argued that the model is better, like the fixed effect model or random-effect model for analysis. Multiple regression-based methodologies were developed to use a fixed-effect model for both dependent variables, Return on Assets and Tobin-Q variables, to discover the association between corporate governance and firm performance. It is concluded that board size, board education board experience, board nationality and board compensation have significant the ROA and board size, board experience, the board size, and board compensation shows significance with Tobin-Q.

Bamisaye&Efuntade (2021) investigated board organization and gender diversity. The study investigated the gender diversity of Turkish and Nigerian boards, the existence of free directors, and the de facto contrast of board size. This review used board information extracted from 102 Turkish and 94 Nigerian organizations. The authors used t-test

measurements to look up the information. The review showed that there was no measurable difference between the two countries as far as the gender diversity of the board and the underestimation of female directors were concerned. The study also revealed a measurable contrast concerning board size and the presence of freeboard individuals between the two countries.

7.0 Theoretical Framework

7.1 Agency Theory

Agency theory propounded mainly focuses on the inherent conflicts between owner's interests and management interest in a company (Fama, 1980). The belief and most often the reality is that the managers who the agents may not manage the company in the interest of the principals, the shareholders. So, managers are expected to keenly manage the company so as to satisfy the shareholders and by extension, other stakeholders like creditors, the government, employees, among others. The board of directors is the strategic managers and they represent the interest of the owners in the business. The size of the board has its own implication on the company.

Unduly large board size may reduce conflict in decision making and expenses to the advantages of the shareholders (Merendino & Melville, 2019). Sometimes, the directors could own a certain proportion of the shares in the company, thus making them owners and at the same time have managerial ownership. Ownership in the company by the directors may minimize the tendency to engage in rent extraction and this conflict arises as a result of the separation of ownership of a company from its management. Ownership by the directors may increase the value of the company. Besides the directors being owners of the business, the shareholders can play active involvement in the management of the company. Example is where the company's large shares are owned by family members. In this case, the family ownership concentration will be high. This has the implication of the family members seeing to it that they take active involvement in the strategic management of the company in order to optimize financial and operating performance.

While a company is managed by executive directors, the non-executive directors, otherwise refers to as independent directors play key role of being watch dogs on behalf of the shares to ensure better profitability and market value from time to time. In these days of stiff global economic turbulences, the need to mitigate agency problem has continued to occupy the front burner. Mitigation of agency problem requires promotion of corporate board diversity so as to age advantage of its attendant benefits, viz-a-viz, operating and financial performance.

7.2 Upper Echelon Theory

According to Hambrick (2017), the upper echelon theory predicts organisational outcomes, strategic choices, and performance. The upper echelon theory explains how board diversity affects financial performance. The upper echelon theory explains executives' behaviour by personal experiences and company values. Executives' past experiences are crucial in board

roles as top management. In upper echelon theory, a board of interlocking directors, nationality, and reputation should leverage their vast and diverse knowledge and skills to influence company financial performance. Upper echelon theory is a powerful tool for studying board heterogeneity (Hambrick, 2017). Given this, top management members with greater demographic diversity could influence top management decision-making and improve firm performance. In this theory, team homogeneity increases profitability in stable environments, while team heterogeneity increases profitability in turbulent environments, especially discontinuous ones (Terjesen, et al. 2016). Top management team demographics include age, gender, race, ethnicity, functional background, education, tenure. They developed the Upper Echelon Theory to address top management diversity and firm performance. They claimed that top management's demographics affect their decisions and their organisations' actions. Demographics are linked to many cognitive bases, values, and perceptions that affect top management's decisions. Thus, this study investigates the topic using upper echelon theory. The study examines directors' demographic and cognitive traits and how they affect their organisations.

8.0 Methodology

8.1 Research Design

The study used Causal-effect research design to determine how one variable (an independent variable) affects another variable (an outcome variable).

8.2 Population of the Study

The population of the study is the entire listed companies in the non-financial sector in Nigeria. As of January 1, 2020, record shows that a total number of one hundred and thirteen (113) non- financial companies were listed on the floor of the Nigerian Stock Exchange.

8.3 Sample Size and Sampling Technique of the Study

The sample size of this study is determined using the Taro Yamani sample selection technique. The formula for the Taro Yamani sample selection technique is: $n = \frac{N}{1+N(e)^2} \cdot W$ here N represents the total elements in the population, one (1) is a constant, n is the sample size; e is margin of error denoted at 0.5%. $n = \frac{113}{1+113(0.05)^2} = 88$.

Based on the number of the listed firms' in this sector under this period, a sample of eighty eight (88) companies out of the aggregate (113) is selected for the period 2015 to 2020. This represents about six hundred and sixteen (616) annual observations. After the various sample sizes were determined, random sampling technique was employed to select the firms.

8.4 Sources of Data

Principally, two sources of data are available in researches. These are primary and secondary sources. Primary source of data is first hand information often gathered through administration of questionnaires to elicit respondents' response over issues under investigation. Secondary source of data emanate from already existing information and facts. Thus, data for the study is sourced from the secondary source, basically from the annual financial statements of the selected listed companies in the Nigerian non-financial sector under the reference period.

8.5 Model Specification

The model used in this study is underpinned in previous studies (Pye, et al., 2016; Kilic, 2015; Osiregbmhe, 2017). Details of what they studied, methodology used and findings made are contained under literature in this study. Thus, this study modifies and adapts their models to suit the stated specific objectives. The model employed is stated in a mathematical form as follows:

$$\text{Firm Perf} = f(\text{Bodrc}, \text{Ibm}) \tag{1}$$

The above mathematical function is stated in stochastic model as follows.

$$\text{ROE}_{it} = \beta_0 + \beta_1 \text{ROE}_{it-1} + \beta_2 \text{Bodrc}_{it} + \beta_3 \text{Ibm}_{it} + \beta_4 \sum \text{control variable}_{it} + \varepsilon_{it} \tag{2}$$

The following explanations clarify the variables in the above model.

ROE_{it} = Return on equity of i company in t period.

Bodrc_{it} = Board of direction reputational capital of i company in t period

Ibm_{it} = Interlocking board membership of i company in t period
 $\sum \text{control variable}$ = Firm size of i company in t period

i = Individual company in the sample size

t = Period the study covers; basically 2012 to 2018. ε = Stochastic error term acting as a surrogate in the model

β_0 = Intercept.

8.6 Method of Data Analysis

This study uses the descriptive and inferential statistics methods to carry out the data analysis. The application of these analytical methods is preceded with panel unit root test and diagnostic tests.

Operationalization of Variables

Table 1

S/N	Variables	Type of Variables	of Measurements	Sources
1.	Financial Performance	Dependent variable	(i) Return on assets (ROA) (ii) Return on equity (ROE). (iii) Tobin q.	Sawir (2005); McKee and Eillifsen (2006)
2.	Return on equity (ROE)	Dependent variable	Measured using natural logarithm of profit after tax over equity, expressed in percentage.	McKee and Eillifsen (2006)
3..	Interlocking board membership	Independent	Measured with a dummy of one (1) if a director holds a seat in another company or subsidiary and zero (0) if otherwise.	Hamdan, 2018
4.	Board of directorship reputational capital	Independent Variable	Measured as the total compensation directors earn from their directorships.	Fredriksson et al., 2018

9.0 Results

9.1 Data Presentation

The table in appendix A showed the data used for the analyses. The data were collected from the secondary sources, hence the validity can be meaningfully relied upon. The data in appendix A is presented to clearly indicate data set used to generate the regression results. The data streams for the study covered 2015 to 2020 for the sampled quoted non- financial firms in Nigeria

9.2 Data Analysis

Data analysis in this subsection was carried out using the panel unit root test, descriptive analysis, correlation analysis and inferential statistics analysis. This is shown sequentially as follows:

9.2.1 Panel Unit Root Test Analysis

In table 4.1, the result of the Levin-Liu-Chiu unit root test statistic for the research variables are presented. Unit root test and preliminary analysis of the data undertaken in this section is as followed:

Table 2: Levin-Liu- Chiu Panel Unit Root Test Analysis

Variables	Adjusted t-Statistics	Adjusted t-critical value	Remark
ROE	1.558	0.059	Stationary at level
BODRC	4.979	0.000	Stationary at level
IBM	4.415	0.000	Stationary at level first difference
FSIZE	9.880	0.000	Stationary at level

Table 2 represents the variables in the model under methodology. ROE represents return on equity; IBM represents interlocking board membership; BODRC represents board of director reputational capital while FSIZE represents company size. Using the Levin-Liu-Chiu panel unit test at 5% significant level. The Levin-Liu-Chiu adjusted statistic result is compared against the t- critical values at 5%. The unit root test result shows that return on equity (ROE), board of director reputational capital (BODRC) and firm size (FSIZE) were all stationary at level. While interlocking board membership (IBM) was stationary at first difference. The unit root test result portends absence of possible spuriousness in the regression results.

9.2.2 Descriptive Statistics of Variables

Table 3 shows some crucial descriptive statistics mean, maximum mean, standard deviation, skewness, kurtosis and Jargue- Bera of the dependent variable which is financial performance measured by return on equity (ROE). The explanatory variable in this study is corporate board diversity. It is further represented with the variables such as interlocking board membership (IBM), Board reputational capital (BODRC) and control variable of company size (FSIZE).

Table 3: Descriptive Statistics of Variables

Variables	Observation	Mean	Max. Mean	STD	Skewness	Kurtosis	Jarque-Bera
ROE	593	9.67	2898.45	173.94	4.18	170.27	693095.8 P-V=0.00***
BODRC	593	64.88	94.44	16.81	-0.55	3.38	34.12 P-V=0.00***
IBM	593	0.36	1.00	0.48	0.54	1.29	100.95 P-V=0.00***
FSIZE	593	N7.159106	N9.220000	0.76	0.25	2.66	9.14 P-V=0.00***

Source: E-view 8.0

Table 3 points out that return on equity (ROE) averages 9.67%, with a standard deviation of 173.94 in the reference period. The return on equity was positively skewed at 4.18, implying the variable was symmetrical around its mean in the period observed. The kurtosis which indicates the peakedness or flatness of the distribution of the series stood at 170.27. It suggests that the distribution is peaked (leptokurtic). The Jarque-Bera statistics of 693095.8 with P- value of 0.00 is statistically significant at 5% level, an indication that the data was normally distributed.

The independent variables include board reputational capital, interlocking board membership and firm size. On an average, board of director reputational capital has the highest mean value of 94.44 percent with a standard deviation of 16.81 in the reference period. This suggests high reputation of the board members and practices of good corporate governance towards enhancing the firm and investors' confidence in the stock market. The skewness is negative while the kurtosis is positive and platykurtic, implying the distribution is flat around mean of the variable in the period. The Jarque-Bera value of 34.12 with a probability value of 0.00 (P= 0.00) is statistically significant at 5% level. It is an indication that the variable is normally distributed in the period.

Interlocking board membership has a high mean value of 1% and a low value of 0.36% among the companies in the period. This suggests that multiple directorship representation on board of listed firms in Nigeria is very scanty. This effect may undermine the benefits accruable from having these sought after strategists and experts in the Nigeria clime. Consequently, this may impact negatively on the operational and financial activities of firms. The standard deviation which shows the variability from the mean is 0.48, an indication of

low risk since the proportion of board interlocks was very low in the firms' board. The skewness is positive (0.54) and the kurtosis platykurtic (1.29). The Jarque-Bera value of 100.95 is significant and distributed normally in the reference period.

Firm size mean value is 7.15910 billion and high mean value of 9.220000 billion naira in the reference period. The figures reported are a pointer that the sampled firms invested heavily in total assets perhaps to enable them optimize the benefit of economy of scale and capital allowance. The result obtained is quite similar to the empirical value obtained by Ilaboya et al. (2016) of 7.303577 billion. It is an indication that the sampled firms are highly capital intensive by way of fixed assets investments. The standard deviation is 0.76, the skewness and kurtosis are positive (0.25 and 2.66). The Jarque – Bera value of 9.14 ($p < 5\%$) is statistically significant at 1% level

Correlation Matrix

This section presents the Pearson Correlation matrix. The essence of the correlation matrix is to reveal the relationship between variables of interest. The threshold level of 80% is commonly taken as a basis of drawing an inference. Analysis of the correlation matrix is done in Table 4.

Table 4 shows the correlation between corporate board diversity mechanisms and return on equity (ROE) of listed Nigerian non- financial firms. For instance, corporate board diversity mechanism such as interlocking board membership (IBM) are weak and negatively associated with return on equity (ROE) at coefficient values of (-0.008) and (-0.010). While board director reputational capital (BODRC) has a positive coefficient value of (0.004) that is weakly correlated with return on equity of the sampled firms in the reference period. Additionally, regarding the relationship between the control variable, firm size (FSIZE) and return on equity are weak and negatively correlated. It can be inferred that reputational capital of the board director is a major driver of the firm financial performance, consequently increase in the shareholders' wealth.

Table 4: Corporate Board Diversity Mechanisms and Return on Equity (ROE)

	i	ii	Iii	Iv
i	1			
ii	0.004	-0.197	1	
iii	-0.058	-0.142	0.031	1
iv	-0.009	-0.516	-0.103	1

Source: E-view 8.0

The Arabic numbers on the vertical and horizontal columns in table 4 represent both the outcome and explanatory variables. i represents ROE; ii represents board director reputational capital; iii represents interlocking board membership and iv represents firm size respectively.

Presentation of Models Regression Results

This study uses the static and dynamic panel methods. It however relies on the system general method of moment (SGMM) in testing the hypotheses. The results are presented as follows.

Presentation of Hausman Test Result

The table 5 represents the Hausman test result of the study.

Table 5: Correlated Random Effects – Hausman Test

Test Summary	Chi-square statistic	Chi-square prob
Cross section random	8.34320	0.012

Source: E-view 8.0 version.

From Table 5, the Hausman test chi-square statistics are statistically significant at 95 level, thus leading to rejection of the null hypothesis. In this case, the alternative hypothesis is accepted. The implication is that the fixed effect estimation is preferred for analysis.

9.3 Corporate Board Diversity Mechanisms and Return on Equity

Table 4.5 concerns the direct effect of corporate board diversity mechanisms on return on equity of listed non-financial firms in Nigeria. Components of the board diversity include interlocking board membership (IBM) and board director reputational capital (BODRC) respectively, controlled by variable such as firm size (FSIZE)

Table 6: Corporate Board Diversity Mechanisms and ROE

	(1) POLS	(2) FE	(3) PDLS	(4) SGMM
BODRC	0.06* [0.14]	0.21* [0.34]	0.00*** [0.00]	0.00*** [0.04]
IBM	-22.82* [0.15]	-20.89*** [0.04]	-14.21*** [0.00]	-22.89*** [0.03]
FSIZE	0.60* [0.95]	20.49*** [0.05]	2.65*** [0.05]	0.60*** [0.96]
C	10.37* [0.90]	151.00* [0.56]	- -	10.37* [0.93]
ROE(-1)				0.81*** [0.00]
R-Squared	0.64	0.78	0.60	0.83
Adjusted R-Square	0.58	0.69	0.52	0.76
F-Statistics	2.47	21.89	-	-
Prob (F-Stat)	0.00***	0.00***	-	-
Durbin-Watson Stat	1.83	2.01	2.07	1.83
J-Statistics and P-Value				9.35 (0.00)***

Source: STATA 14 Version

The table represents the variables in the construct. ROE represents return on equity; represents IBM interlocking board membership; BODRC represents board of director reputational capital; Fsize; value in parenthesis are t-statistical values; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

The result of system GMM (SGMM) in Column (4), indicates that the coefficient value of the returns on equity (ROE) is positive and statistically significant (0.45) at 95% level. It is suggestive that a period lag of return on equity (ROE) contributes significantly to the financial performance of the listed firms in Nigeria.

Interlocking board membership (IBM) has statistically significant negative coefficient value (-22.82); (-20.89); (-14.21); and (-22.82) at 99% level on the return on equity (ROE) of listed non-financial firms in Nigeria in the reference period. The null hypothesis (H03c) in table 4.7 which states interlocking board membership does not have significant influence on the return on equity (ROE) of listed non-financial firms in Nigeria is not supported. The result is not unconnected with few directors occupying multiple seats across firms. This result is in line with some previous findings that the greater the board interlocking; the more chance of managers to be less concerned in the day to day management of the firm.

Interlocking board membership (IBM) has statistically significant negative coefficient value (-22.82); (-20.89); (-14.21); and (-22.82) at 99% level on the return on equity (ROE) of listed non-financial firms in Nigeria in the reference period. The null hypothesis in table 4.7 which states interlocking board membership does not have significant influence on the return on equity (ROE) of listed non-financial firms in Nigeria is not supported. The result is not unconnected with few directors occupying multiple seats across firms. This result is in line with some previous findings that the greater the board interlocking; the more chance of managers to be less concerned in the day to day management of the firm.

Board director reputational capital (BODRC) has a positive coefficient value of (0.06); (0.21); (0.00) and (0.00) on return on equity (ROE). It was statistically significant only in panels C and D only in the reference period. The hypothesis (H04d) in Table 7 which states that board director reputational capital does not have significant impact on return on equity (ROE) is rejected. It portrays that board director reputational capital is a key internal corporate governance mechanism for maximizing wealth of the shareholders of listed non-financial firms in Nigeria. As board director reputational mechanism increases, financial performance increases also, holding other factors constant. The result agrees with the findings of Fredriksson et al., that to protect their own reputational capital, board directors do ensure adherence to quality accounting information disclosure, ethical standards and also demands for optimal performance with a view to attaining the goal of maximizing the wealth of the shareholders and other stakeholders at large.

Looking at the results of the corporate board diversity mechanisms, it seems that only board director reputational capital has the highest positive magnitude coefficient on the return on

equity of the firms. This purportedly reflects the high influence the level of reputation of directors has on enhancing the wealth of shareholders in firms in Nigeria. The adjusted R-square values indicate all the explanatory variables jointly contribute at improving the financial performance of listed non-financial firms at 58%, 69%, 52%, and 76% respectively, leaving other percentages unaccounted for due to the presence of the stochastic error term. It indeed shows the goodness of the model at predicting the performance of the firms in Nigeria. The Durbin-Watson statistics for panels, A, B, C, and D are approximately 2, suggesting the removal of autocorrelation and the usefulness of the result for policy implications in the Nigerian-listed non-financial firms. The Hansen J- statistics test of over-identifying restriction accepts the joint null hypothesis that the variables were uncorrelated with the error terms in the model

9.4 Summary of Findings Based on the Hypotheses of the Study

Table 7 demonstrates the decision rule emanating from the test of the hypotheses. The hypotheses stated earlier in the conceptual framework and hypothesis chapter of the study in their alternative form. The system general method of moment (SGMM) estimation method, the variables coefficient and significant values in table 6 are used in the hypotheses testing. Decision arising from the test of the individual hypotheses based on the research questions and specific research objectives of the study is indicated in table 7 as follow:

Table 7: Summary of Findings Based on Hypotheses of the Study

S/N	Statement of Hypotheses	Decision
H0	Corporate board mechanisms do not have significant impact on return on equity (ROE)	
H01	Interlocking board membership does not have significant influence on the return on equity (ROE) of listed non- financial firms in Nigeria.	Not Supported
H02	Board director reputational capital does not have significant impact on the return on equity (ROE) of listed non- financial firms in Nigeria	Supported

Source: Tests of Hypotheses Results from E-view

9.5 Discussion of Findings

The empirical results produced intriguing findings. For instance, Interlocking board membership (multiple directorships) exerted a negative significant effect on the firm financial performance of listed non-financial firms in Nigeria. This is because the directors with multiple seats do not have enough time to oversee day-to-day operational activities, management, and earnings perhaps due to their busy schedules. This may predispose other board directors and managers to increase opportunistic behavior, and income smoothing and consequently results in the low financial performance of the sample listed firms. Multiple directors (interlocking board membership) are highly sought-after directors because of their

high net worth, integrity, professional accounting competence, and financial expertise. Their understanding, training, exposure, and long-standing years of experience in corporate matters necessary should enable them to spend enough time to effectively monitor management activities regarding the daily operation of the company, promoting ethical standards and operational performance. Contrary to expectation, the finding contradicts the assertion in accounting and finance literature that companies do allow directors to occupy multiple seats perhaps because of the financial expertise, accounting and managerial wizardry, wealth of experiences; social network worth they have and other invaluable impacts they bring to influence financial and non- financial performances. Multiple directorship though quite significant, failed to contribute to the financial performance of listed firms in Nigeria in the reference period.

The negative effect of multiple directorship on firm performance may be one of the reasons policy favouring interlocking board membership despite its acclaimed positive effect in companies does not exist in the corporate governance code of best practices in Nigeria. This is in line with Yatim et al., 2016, which reported that the stance where they stated that less than multiple directorship is considered as best practice in the United States of America. Similarly, the adverse effect of multiple directorship on firm performance of the firm is not unconnected with poor time commitment on the part of the directors who occupy multiple seats. This negative impact could translate to ill-governed and poor growth opportunities in the sampled firms. The finding agrees with the busyness hypothesis (theory) Pye et al., 2017; Geletkanycz & Boyd, 2018; Richardson, 2016; Devos et al., 2019 which established inverse to no direct relationship between interlocking board membership and firm financial performance. The finding however is inverse of the research outcome of a study by Ahmad, 2018, which revealed a positive effect of interlocking board membership on firm performance.

Board director reputational capital is positive and significant on the financial performance of the firms in the reference period. Among all other explanatory variables, board reputational capital exerted the highest influence on the financial performance of the firms. The result is suggestive that the reputation of the board director is a key cognitive corporate governance mechanism driving the operational efficiency and financial performance of listed companies in the context of Nigeria. Intuitively, the finding corroborates with the theoretical assertion of Du et al, 2019 that the reputational capital of the board of directors tends to boost their sense of responsibility as well as their specialized knowledge which in turn enhances their professional judgment about the operational and financial performances of firms. The assertion in accounting and finance literature that integrity is a social intangible asset firms can leverage to enthrone effective corporate governance in the light of dynamism in the corporate world. The finding is in tandem with a report by Fredriksson et al., 2018, which states that to protect their own reputational capital, the board of directors do ensure adherence to quality accounting information disclosure, and ethical standards and also demands optimal performance with a view to attaining the goal of maximizing the wealth of the shareholders and other stakeholders at large. In a nutshell, the study established that board corporate diversity is a significant tool for driving the operational and financial performance of listed firms in the context of Nigeria.

10.0 Conclusion

This research sought to examine how corporate board diversity mechanisms such as interlocking board membership and board reputational capital on financial performance of listed non-financial firms in Nigeria. The results portray that while board reputational capital significantly influence firm financial performance in Nigeria, multiple directorship contribute less to it. The test of the hypotheses also affirmed these relationships. This study therefore concludes that corporate board diversity are effective mechanisms at enhancing the operational and financial performance as well as growth opportunities of listed firms in Nigeria.

10.1 Recommendation

Based on the empirical findings obtained, the following recommendations are put forward:

- i. There is need for firms to encourage adequate interlocking members who have diverse professional training, high social net worth and experience (experience hypothesis) to positively influence effective management and financial performance of listed firms in Nigeria.
- ii. Quoted firms in Nigeria should ensure the composition of corporate board contains optimal mix of executive and non – executive directors who are professional accountants, business strategists and legal experts. These set of caliber of persons should be able to bring their wealth of experience and training to positively influence key decision making regarding expenses minimization and performances in firms

10.2 Suggestions for Future Research

- i. First, this study could be extended to cover country-specific effect by future researchers. In other words, the significant of the association between the corporate diversity mechanisms of listed non-financial institutions in each country could make results that are more interesting
- ii. An analysis of the same topic in financial institutions as compared to non-financial institutions could make a dramatic theoretical and empirical contributions and crucial policy implications.
- iii. There is need for future researchers to examine this topic with increased sample size, period and particularly in both financial and non-financial sectors of Sub-Saharan African countries. This should assist for comparison purpose and for policy implication.

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