

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

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Abstract

This study examined 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. A sample of eighty-eight (88) firms was selected using Taro Yamane and data were collected over the period 2015 to 2020. Descriptive analysis comprising of descriptive statistics and correlation statistics as well as inferential statistics consisting of panel least squares, fixed effect, pooled data and system general method of moment estimation methods were used to undertake the data analysis. Findings obtained from the analysis revealed that Board gender diversity exerted significant impact on the financial performance of listed firms while board membership exerted a negative effect financial performance of listed firms in Nigeria. The study concluded that corporate board diversity are effective mechanisms at enhancing the operational and financial performance as well as growth opportunities of listed firms in Nigeria. The study recommends that regulators and firms need to design a framework to efficiently and effectively monitor the reputation of executive board directors and managers in firms to check mate agency costs, demonstration of opportunistic behavior capable of destroying the firm value, financial performance and shareholders wealth.

1.0 Introduction

Demographic diversity mainly consists of board gender diversity, board nationality, board ethnic diversity, board interlocks and board of director political connection (Aliani&Zarai 2017). Gender diversity is the representation of certain proportions of women in the board of companies. It is becoming an area of interest to researchers and policy makers around the world. Women director representation in companies varies across countries in different continents of the world. The Heighten interest in gender diversity has continued to necessitate researchers and policy makers to advocate for women directors inclusivity in boards of companies. For example, the UK and U.S corporate governance codes of best practices encourages the appointment of women directors in companies' boards. Spain, Norway and some other countries through legislation has mandated inclusion of gender quotas in listed companies' boards. Such legislation is aimed at increasing the quality of corporate governance system (Schwizer, et al. 2018). One of the motives for women directors inclusion in company board is probably to promote honesty and high ethical values, greater independence reasoning, mitigation of effect of 'group thinking' in the board, enthroning more informed decisions that could increase the level of transparency resulting to better financial performances.

Corporate board gender diversity could consist of men or women from different nationality. Board nationality is interchangeably used as board room globalization or board internalization or foreign board directors. Board nationality is one of the critical corporate governance indicators presumed to influence the operational success and financial performance of companies generally (Kilic, M. 2015). Foreign directors enhance financial monitoring and optimal performance of companies (Du, et al. 2017). Foreigners on the board of listed firms are normally held at high esteem. This could be as a result of their ability to cause improvement in strategies, including enhancement of diversifications, minimizing risks, promotion of higher ethical standards, enhance financial performance as well as strengthening financial reporting quality in companies.

2.0 Statement of Problem

Despite various diversity dimensions like gender, nationality, education and age occupying a front burner in researches and practice with a view to increasing board effectiveness all over the world, there is no adequacy of studies regarding these diversity dimensions impact on companies in the context of developing countries (Post & Byron 2015); and Nigeria as a nation is not immune from it.

Global Gender Gap Report reveals that Nigeria ranks at the bottom of the female gender worker equality and representation index (World Economic Forum. 2016) While myriad studies have sought to assess the nexus between corporate gender diversity and firms' financial performance in developed countries (Carter, et al. 2017; Mirza, et al. 2018), the few researches have addressed the influence of women presence in boards on the financial performance of listed firms in Nigeria are inconclusive. This has thrown open a gap for empirical investigation in the Nigeria clime (Iigbinosa&Ogbeide, 2015). While the number of foreign director on board is on the ascendancy in developed countries, the same may not be said in the developing countries like Nigeria. Perhaps because of discriminations and policy bias, there appears to be little or no nationalities in the board of listed firms in Nigeria. The presence of female foreign directors on the board may improve firm performance (Kilic, 2015; Rose, 2015). This may be possible if they bring different perspectives to the decision making process of the company board. The scantiness of female nationalities on companies' board portends they merely serve as 'token' and the impact of it on operational and financial performances remains uninvestigated on the empirical front. 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 broad objective of the 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. Determine the relationship between board gender diversity and firms' financial performance;
- ii. Find out if board nationality structure impact on firms' financial performance;

4.0 Research Questions

This study would address the following research questions:

- i. Is there a relationship between board gender diversity and firms' financial performance?
- ii. How does board nationality structure impact on firms' financial performance?

Research Hypothesis

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

Ho1: There is no significant relationship between board gender diversity and firms' financial performance.

Ho2: Board nationality does not significantly impact on firms' financial performance

5.0 Literature Review

5.1 Concept of Corporate Board Diversity

Corporate board diversity as a concept may be linked to differences in board compositions. Corporate board diversity is the variation of social and cultural identities among people existing together in a defined employment in a company (Marimuthu, 2018). Social and cultural identity refers to the personal affiliation with groups. Social and cultural identities do have significant influence on peoples' major life experiences. These identities include gender, race, national origin, religion, age brackets, work specialization and among others. Primary category of corporate board diversity includes age, race, nationality, interlocking, ethnicity and gender. While secondary category of diversity includes education, experience, income, board members reputation, marital status.

5.1.1 Board Gender Diversity

Following the primary category of corporate board diversity, gender diversity on the corporate board represents one of multiple aspects of diversity (Luckerath, 2010). The gradual increase of the number of women on corporate boards is closely related to the high awareness of shareholders, directors and officers of a company of the importance of board diversity. Board gender diversity reflects the proportion of women in the board of companies.

For sometimes now, there has been tensed demand for women occupying top management position. In a superior argument, this study holds the view that the existence of female directors on top management level decreases information asymmetry between women directors and managers through voluntary information disclosure as well as better to demonstrate greater ethical behaviour and risk aversion.

Companies do miss a lot of talents and experiences when women are under-represented in corporate boards (Aliani&Zarai, 2015). They opined that European countries are considering legislation that would enforce companies to promote more women to the executive positions, and that a new French law has even requires quoted companies to reserve 40% of board seats for women by 2017, inclusive of Norway and Spain. Some countries like France and Italy are already thinking of significant steps to this direction, Norway, Spain and Australia have already taken significant steps in this regard, in addition to the fact that some developing economics in the likes of India, China and Middle East countries inclusive of Tunisia and Jordan are beginning to recognize the need to developing female talent up to the board level (Singh, 2008).

Woman are more risk averse particularly in certain economic domain and they are involved less in non-ethical behaviours compared to men. The differences between women and men can be generated not only by the biological differentials, but by a set of features linked to the gender like feminine traits such as socially desirable behaviour, kindness, as well as the masculine traits like the dominance, the competitiveness and aggressiveness (Kastlung, et al. 2017). Recognizing the relevance of board gender in firms, Norway became the first nation of the world to legislate for a certain quota of women on firms' board. Other countries like Spain, France, Belgium and others have also keyed into the gender inclusivity agenda in forms. Basically, the inclusion of women on firms' board attracts much potential benefits. In the view of this study, women are more ethical in work place and are less likely to engage in unethical behaviour to gain financial rewards. In a typical company, greater proportion of managerial opportunisms are initiated and caused by the male board director.

This is because men are more dominant, initial and carry out vital strategic decisions which may be in their interest solely. Where women numbers owe there in the board, it can best be regarded as a token. These obvious tokenism perpetuations by the male counterparts are unhealthy and could enthrone unethical practices; engender poor monitoring, thus leading to sub-optimal financial and operating performances in company. Shareholders, legislators and regulators possess a common interest in increasing gender diversity in the boardroom. Research shows that diverse teams perform more effectively, boards most certainly included. Adding variety to a board's viewpoints and skills facilitates navigation of complex questions and protects businesses from any number of risks. While organizations have made some progress toward gender diversity in the boardroom, there is much more to be made.

In 2017, the percentage of women directors on Russell 1000 company boards was under 20%. By 2019, that percentage had risen over 24%. These public company metrics seem promising

year over year, but women and girls make up nearly 50% of the world's population (it's slowly declining); gender diversity in the boardroom today falls far short of acknowledging this truth. The metrics for private companies show they have even less gender diversity in the boardroom than public firms do. A 2019 collaborative research study found most private companies sorely lacking in gender diversity in the boardroom. Only 7% of directors were women at the heavily-funded, high-value private businesses they studied. Six in 10 of these companies didn't have a single woman on their boards. When companies did have a female board member, she was the only female board member 76% of the time.

There are any number of reasons private and public organizations should seek greater gender diversity in the boardroom, including foremost women's abilities and backgrounds, pressure from investors and regulations. Men are nearly five times as likely to be a board chair or lead director and yet, women who do serve on boards really perform:

- i. Women chair 21% of board committees.
- ii. While only 22% of board members are women, 24% of board committee members are men
- iii. Women attain leadership roles 20 months faster than men on average.

Uniqueness of Female Gender Inclusivity in Corporate Board

Female gender directors behave differently from men directors in company. The behavioural disposition of women in terms of ethical behaviour demonstration and sheer commitments towards excellent performance does contribute to the level of quality of the number of women candidates for board nominations (Barbulescu & Bidwell 2018), excellence in creating relationship and in cooperative work is of high value for the group work that describes board activity (Dargnies, 2016) Triana, et al. (2015) opined that female directors tend to excel in monitoring functions and hold management accountable for activities. The existence of female directors in the corporate boards reduce accounting manipulation and earnings management, and thus improve the informativeness of the accounting numbers (ShamsullNahar, et al. 2017).

According to Barbulescu & Bidwell (2017), the career aspirations of female directors often results in various occupational profiles than male directors. The obvious presence of female directors on corporate board improves the diversity of functional background. Women directors are effective to make vast network with resources controlled them. Adams & Ferreira (2019) opined that women board director do not demonstrate characteristics of the "old boys club"; this is why they are commonly refer to as independent directors in companies. Similarly, bringing women on board in company adds value. It also brings divergent opinions, experience, working styles and perspectives (Adams & Ferreira, 2019)

Mustafa & Ahmad (2018) said female directors are more conservative with respect to the financial reporting process than their male counterparts and this positively impacts the boards demand for quality financial performance. Female directors are good at monitoring with

regards to board function; and this helps to minimize odds of getting a qualified opinion from the statutory auditor. The notion here is that companies with women directors on corporate boards do have sufficient capacity to take care of operational risks. Women corporate board are more active, risk – averse and more conservative towards litigation risk and they many want to maintain their reputational capital (Mustafa & Ahmad 2018). There are some views that female directors are more ethical in the place of work and not likely to behave unethically in order to have financial rewards.

5.1.2 Board Nationality

Board nationality is one of the characteristics of board of directors in a typical quoted company. It attracts and intertwines with other characteristics of the board of directors. Other features of board of directors include board of director reputational capital, interlocking board membership, board gender. According to Yatim, et al. (2017), on board attributes and foreign shareholdings in Malaysian listed firms’ report a strong link between interlocking board membership and board nationality. As stated in World Bank official documents, these boards of director’s characteristics are important features of corporate governance and they provide the motivating framework for companies to attract financial and human capital, perform efficiently, and avoid managerial manipulation and shareholders expropriation.

As pointed above, board nationality has a chain connection with other characteristics of board of directors. For instance, a foreign board member could have multiple seats on the board of other firms’, the foreign board member maybe a male or female and their placement on a company’s board is occasioned by the reputation and goodwill they have been observed to possess. Outside directors who serve on multiple boards can gain both valuable experience and reputational benefits. Prior researchers have asserted that the number of board seats held by a director might portray reputational capital with such individuals viewed as high quality directors. Obviously directors who sit on boards of other firms’ have consciously defined their reputational capital as expert of decision makers and monitors (Yatim, et al. 2017).

The essence of having board nationality in a company cannot be overemphasized. In furtherance of this, it could be accentuated that nationalities in corporate boards are highly valuable. This is because they provide management with prestige, visibility and commercial networking and contracts. Since board nationality promotes multiple directorships, multiple direction ships in it permit companies to use its directors to form advantageous contracting relations with external parties such as getting funds from financiers on the basis of their reputation. By so doing, they are to use these contracts to access new markets as well as help secure new technology.

6.0 Empirical Review

6.1 Women Board Members and Firms' Financial Performance

Carter et al. (2010) in their work opined that Female board members are more independent because they are not part of the old boys' network. Women are more likely to be placed in positions of leadership in circumstance of down turn (Rynan& Hassan, 2016) the consequence of this is that the presence of women on the board could be perceived by shareholders that significant change is on the way; thereby making them more confident in the company's success which results in increase in share price (Austin, et al. 2015). Women pay greater attention to monitory firms and their presence improves the attendance of men. They argued that gender diversity inhibits performance; and greatest proportion of women board members significantly enhances higher returns on equity; which in this case the stock returns (prices) (Carter et al. 2010)

Joecks et al. (2015) in their work on gender diversity and firms' performance using their sample represent 151 Listed German frms over the period of six years from 2000- 2005. They measured firms' performance in terms of ROE. In their various models they used the OLS estimators with robust standard errors and firms' clusters and also applied the random effect estimator. They found that female representation on the board is higher in the financial sector, telecommunication, Pharma & Health care and in consumer goods. They concluded that gender diversity has no linear relationship with ROE. However they found it to be positively related to market value as well as multiple directorship and board size; arguing that larger and more experienced boards have on average more women.

In a work by Ionascu, et al. (2018) to examine Romanian companies listed on the Bucharest Stock Exchange 2012–2016 (343 firm-year observations). Their results indicate that, on average, the diversity of BoDs has no significant impact on firm performance. In the authors' words: "although firm performance seems to be positively correlated with gender diversity of the boards, the association is not robust and ceases to be significant after endogeneity is controlled for". The method employed is panel data linear regression with a dependent variable representing performance. There are three such variables attempted: return on assets (ROA), Market-To-Book ratio, and Tobin's Q. Such a setup is typical for most studies. The gender diversity variable is one of the explanatory variables in the regression. The authors consider three such variables: the proportion of female members on a board, a dummy variable indicating a woman as president of the board, and an interaction variable being the product of the first two variables. A major problem is always the selection of other predictors (explanatory variables, controls). The authors also try to perform the same analysis for profitable companies with a marginally better result: for profitable companies, the relationship between female presence and firm performance is then marginally positive.

Schwizer, et al. (2016) used panel data analysis to establish the relationship between female presence (gender diversity) on boards and firm performance for 918 listed companies in Italy between 2011 and 2014. The authors use Tobin's Q as the measure of firm performance. The

“female” variables are four (sequentially): a dummy representing at least one woman on the BoD, the percentage of female directors, the Blau index, and the Shannon index. The last two indices measure the gender diversity of the BoD with limits of zero (no diversity) and 0.5 or 0.69—perfect diversity or 50:50, respectively. According to Italian law from 2011, it is mandatory that there be at least one woman on a BoD. Nevertheless, only 73% of boards in the sample fulfilled this law. This variable specifically turns out to be insignificant in the models explaining Tobin’s Q with other typical control variables. Other “female” variables are significantly positively related to Tobin’s Q. Strangely enough, the authors placed ROA as one of the performance measures among the controls. The authors maintain that their study shows a “positive and significant effect” on Tobin’s Q of the three variables measuring the presence of women on BoDs in Italy.

6.2 Board Nationality and Firms’ Financial Performance

Board nationality is the ratio of foreign board members to total board size. The potential advantages of foreign board membership have received serious attention in corporate governance studies globally (Marimuthu & Koladasamy 2019). First, with foreigners on the board, a large stock of qualified candidates would be available for the board with broader industry experience (Austin, et al. 2015). This significantly results to efficiency in the firms’ management, increase in the firms’ performance and stock price appreciation. Second, because of their different backgrounds, foreign members can add valuable and diverse expertise which domestic members do not possess (Lee&Farh2016). According to Oxelheim & Randoy, (2017)Foreign board members can also help assure foreign minority investors that the company is managed professionally in their best interests. On the other hand, opponents to this view argue that foreign board members may be less informed about domestic affairs and therefore, less effective.⁵⁷ Also, changing the board language to fit foreign members may be costly and add to adjustments problems (Ujunwa, et al. 2017).

In a study by Carter, et al. (2010) to determine the effects of the inclusion of women and ethnic 30 minorities on firms’ performance in the U.S.A.²² Data were collected from the total composition of Fortune 500 board committees between 1998 and 2002, 5yrs. Analysed using OLS regression with Tobin’s Q and ROE as the financial measure. Findings show that ethnic and Gender diversity may have a positive or negative effect on performance.

Ararat, et al. (2016) aimed to determine the relationship between board diversity and performance using variables like gender, ethnic, educational and nationality background in Turkey.He made use of Tobin’s Q as a measure of financial performance in the empirical study. Results found that higher diversity leads to an increase in market-to-book ratio of a firms’ in such countries as Turkey.

Darmadi, S. (2016) aimed to determine the relationship between board diversity and performance in Indonesia. He made use of gender, nationality, age, and ROE as diversity and financial performance variables respectively. The results showed that nationality diversity has no impact on the financial performance for a sample of Indonesian companies.

Naveen, et al. (2016) conducted a study primarily on the advisory role of foreign directors in U.S firms while eliminating those not incorporated in U.S. Their study was carried out on S&P 1500 firms with sample size encompassing 1998 through 2007. The study used Tobin's Q measured as the sum of book value of debt plus market value of equity divided by the book value of assets as the proxy for firms' value. Therefore, they concluded that it is not the mere addition of a foreign director that adds value to the firms, but that value is only added when firms themselves can benefit from the director's advisory services in a foreign country.

Similarly Masulis, et al. (2017) conducted on determinant of having Foreign Independent Director and its impact they have on firms' performance. They used a cross-section of more than 20,000 firms' from 98 countries. They used the OLS regression technique to test their hypothesis by measuring firms' performance in terms of ROA. Industry fixed effect was used as part of the control variables to account for broad specific factors. They found negative significance between the presence of foreign independent directors and firms' performance in wealthier countries with developed capital market, better education and legal institution but more negative significance with countries with less these characteristics. Their results also suggest that the further away a foreign director's home country is from his host country, the more negative is the effect of the director on firms' operating performance, and this supports the idea that the physical distance from company headquarter hampers the foreign directors' ability to effectively monitor management.

7.0 Theoretical Framework

7.1 Gender Role Theory

The gender role theory developed connotes that an individual's gender determines his/her behaviour and its effectiveness with respect to influence in life and organizational settings. Moreover, the theory suggests that males and females' behavior are assessed in terms of how it ascribes or diverges from expectations of the respective gender. Gender role theory describes how men and women have normatively prescribed behavior with respect to communication, including influence tactics (Forbers & Milliken 2015). For instance, women are expected to ascribe to more feminine roles such as sympathy and gentility. By contrast, men are expected to be more assertive and aggressive (Forbers & Milliken 2015). Another gender role associated with women is flexibility which leads to a greater ability to manage ambiguous situations. Gender roles are relevant for the board as directors must use communication tactics that are effective in terms of influence. According to Hambrick & Mason (2015), gender roles are particularly salient in male-dominated realms. As such, the board of directors where esteemed is critical to effectiveness.

7.2 Upper Echelon Theory

According to Hambrick, (2017) the upper echelon theory states that organization's outcome; strategic choices and performance level are partially predicted by managerial background and characteristics. The upper echelon theory is germane towards explaining the link between

corporate board diversity and firms' financial performance. The upper echelon theory describes how executives' behaviour may be explained by personal experiences and values in a company. Usually executives' prior experiences are very important in board roles as top management echelon in the organizations. In the context of upper echelon theory, a board consisting of interlocking directors, nationality and reputation should necessarily leverage their vast and diverse set of knowledge and skills and thus influence the company financial performance. One of the most effective theories that can be used to underpin studies on board heterogeneity is the upper echelon theory (Hambrick, 2017). In view of this, top management members could with greater demographic diversity, influence decision making process in the top management and positively contribute to firms' performance. In this theory, in stable environment, team homogeneity will be positively associated with profitability and that in turbulent environment, especially discontinuous environment; team heterogeneity will be positively associated with profitability (Terjesen, et al. 2016). The demographic characteristics on top management team include age, gender, race, ethnicity, functional background, education, tenure. They paved a way to deal with diversity within top management and its impact on firms' performance that is better known as the Upper Echelon Theory. They argued that top management's characteristics (e.g. demographic) influence the decisions that they make and therefore the actions adopted by the organizations that they lead. It occurs because demographic characteristics are associated with many cognitive bases, values and perceptions that influence the decision making of top management. Therefore, this study uses the upper echelon theory to investigate the subject matter. This is so because the study focuses on the characteristics of directors, both demographic and cognitive and how it affects the organization they govern.

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: $n = \frac{N}{1+N(e)^2}$. Where 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 firsthand information often gather 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 follow:

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

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

$$\text{ROE}_{it} = \beta_0 + \beta_1 \text{ROE}_{it-1} + \beta_2 \text{Bgd}_{it} + \beta_3 \text{Bnat}_{it} + \beta_4 \sum \text{control variable}_{it} + \varepsilon_{it} (2)$$

The following explanations clarify the variables in the above model.

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

Bgd_{it} = Board gender diversity of i company in t period

Bnat_{it} = Board nationality of i company in t period

\sum 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..	Board Gender diversity	Independent variable	Measured using BLAU index method	Ogbeide (2018); Beridze (2016), Hoang, Ma and Abeysekera (2016)
4.	Board of Director Nationality	Independent Variable	Measured using BLAU index method	Ogbeide (2018); Beridze (2016), Hoang, Ma and Abeysekera, 2017.

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
BGD	5.841	0.000	Stationary at level
BNAT	1.788	0.036	Stationary at difference
FSIZE	9.880	0.000	Stationary at level

Table 2 represents the variables in the model under methodology. ROE represents return on equity; BNAT represents board of director nationality; BGD represents board gender diversity while FSIZE represents company size. Using the Levin-Liu-Chiu panel unit test at 5% significant level. The Levin-Lin-Chu adjusted statistic result is compared against the t-critical values at 5%. The unit root test result shows that return on equity (ROE), board gender diversity (BGD), while board nationality (BNAT) became stationary at 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 board nationality (BNAT) 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***
BGD	593	0.09	0.84	0.57	1.43	5.48	365.79 P-V=0.00***
BNAT	593	0.02	1.00	0.15	6.27	40.38	38418 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 Jargue-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 gender, board nationality and firm size. On an average, board nationality has a maximum mean value of 1% with a low dispersion from the mean of 0.15. The low dispersion from the mean may be due to the 'tokenness' of foreign directors in the firms' board under reference period. The skewness has a value of 6.27 and positive kurtosis of 40.38 and is very leptokurtic. The normality test shows that the variable is significant given the Jarque-Bera value of 38418.70 (P-Value=0.00). Board gender (BGD) has the lowest mean value of 0.09 and a high mean value of 0.84%. This portends that the average representation of female directors in the firms' board was below 1 percent. The standard deviation reads a low of 0.57, an indication of variability. This affirms the hue and cry of the general public on the marginalization of women on corporate boards of quoted firms in Nigeria. This suggests that the tendency of female board members to contribute optimally to the operational performance of firms likely, though gender diversity measure varies in one prior study to the others. For instance, Oyeleke et al. (2016) recorded 18.7% in the Nigerian banking sector. The skewness is negative (-1.43) with a leptokurtic kurtosis of 5.48. The Jarque – Bera value of 365.79 ($p < 5\%$) and is statistically significant at 1% level; suggesting that the variable is normally distributed.

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 gender diversity (BGD), nationality (BNAT) are weak and negatively associated with return on equity (ROE) at coefficient values of (-0.008) and (-0.010). Additionally, regarding the relationship between the control variable, firm size (FSIZE) and return on equity are weak and negatively correlated.

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

	i	ii	iii	iv
i	1			
ii	-0.008	1		
iii	-0.010	0.048	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 gender; iii represents board nationality 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 board gender (BGD), board nationality (BNAT), 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)	(2)	(3)	(4)
	POLS	FE	PDLS	SGMM
BGD	-4.23*	-0.12*	-1.19**	-4.23***
	[0.77]	[0.34]	[0.00]	[0.00]
BNAT	-21.07*	-1.35***	-23.02*	-21.07***
	[0.66]	[0.00]	[0.19]	[0.22]
FSIZE	0.60*	20.49**	2.65**	0.60***
	[0.95]	[0.05]	[0.05]	[0.96]
C	10.37*	151.00*	-	10.37*
	[0.90]	[0.56]	-	[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; BGD represents board gender diversity; BNAT represents board nationality; 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.

The coefficient value of board gender is negative in panels A, B, C and D (-4.23); (-0.12); (-1.19) and (-4.23) on return on equity. It is statistically significant in panels C and D only. Employing regression output of system general method of moment (SGMM) in column 4 in hypothesis testing, the hypothesis H01a in Table 7 which states there is no significant relationship between board gender and return on equity (ROE) of listed non-financial firms is not accepted, thus affirming the expected a-priori sign of the study. It is suggestive that a token of women director in board is contributive to efficient operational management of firm, promoting ethical value, consequently the operational and financial performance of listed firms in the context of Nigeria. The result is in affirmation of the motives for the advocacy of women directors inclusion in company board which is probably to promote honesty and high ethical values, greater independence reasoning, mitigation of effect of 'group thinking' in the board, enthroning more informed decisions that could increase the level of transparency resulting to better financial performance in companies. The finding is in tandem with gender role theory, women risk aversion theory and ethical theory as discussed in the literature review section of the study.^{1,2,3}

Board nationality has negative coefficient value of (-21.07); (-1.33); (-23.02) and (-21.07) in panels A, B, C and D on the return on equity (ROE) level in Nigerian listed non-financial firms. It is statistically significant at 95 level in panels B, C and D. Consequently, hypotheses H02 in table 7 which states that board nationality does not significantly impact on the return on equity (ROE) of listed non- financial firms in Nigeria is not accepted. The finding is suggestive that the presence of foreign directors in board though is insignificant and does not contribute to financial performance and wealth maximization of shareholders of listed non-financial firms in Nigeria. This is perhaps due to high under-representation of foreign directors in Nigerian listed firm. For instance, a glance in the content of corporate governance code of best practices in Nigeria indicates that the provision and condition(s) for board nationality inclusion in firm board is not defined. This is despite the numerous attendance benefits of board nationality inclusion in firm. The finding correlates with research which reported a negative and insignificant impact of foreign board directors on financial performance in firms.^{4,5}

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	There is no significant relationship between board gender diversity and the return on equity (ROE) of listed non- financial firms in Nigeria.	Supported
H02	Board nationality does not significantly impact on the return on equity (ROE) of listed non- financial firms in Nigeria	Not Supported

Source: Tests of Hypotheses Results from E-view

9.5 Discussion of Findings

The empirical results produced intriguing findings. For instance, board gender exerted a negative significant impact on the financial performance of listed non- financial firms in Nigeria. The hypothesis supports the significant relationship between board gender and firm performance in listed in Nigeria. The empirical result validates the under representation and marginalization of women directors in Nigerian listed firms. The result affirms the report of World Economic Forum (2014) that Nigeria ranks at the bottom of the female worker gender equality and representation index in the world. This inverse result is not unconnected the measurement and estimation methods differentials. The approximately 1% women director representation as seen in the descriptive statistics table above in the firms not only underscores the negative effect on the firm financial performance but leads to danger exposed by the firms such as the tendency to cause menboard counterparts to grossly engage in non-ethical behavior such rent extraction, poor competitiveness often come with homogeneous board. Women corporate board are more active, risk – averse and more conservative towards

litigation risk and they may want to maintain their reputational capital. There are some views that female directors are more ethical in the place of work and not likely to behave unethically in order to have financial rewards.

The empirical finding clearly connotes that the firms are losing the attendant advantages associated with women directorship which among others include female's excellence in creating relationship and in cooperative work; effective in monitoring functions and hold management accountable for activities; reducing accounting manipulation and earnings management and improvement as well as effectiveness at making vast network with resources controlled resources. Empirically, the result confirms the research outcome of some studied negates the results negates the upper echelon theory, gender role theory and ethical theory.^{3,4,7}

Board nationality though significant exerted a negative impact on the financial performance of listed firms in Nigeria in the reference period. The negative impact of foreign board members on firm performance may be adduced to the fewer number of them occupying corporate board in Nigeria. For instance, the proportion of foreign board members in Nigeria is below 1%. This signify the 'tokenness' of these foreign nationalities in the firm. Consequently, the adverse effect of board nationality on the financial performance of firm as deduced in the result is not surprising! Theoretically, the firm could be said to be suffering from the attendant advantages of having board nationality which among others include providing management with prestige, visibility and commercial networking and contracts. The result is contrary to agency theory, upper echelon theory and resource dependency theory and ethical theory. The result is suggestive that the near absence of foreign directors despite their different background in the firms could cause to lose added value and low professional management. This could translates to decrease in the wealth of the shareholders both in short and long runs in the firms. Empirically, the finding corroborate with the research outcome of some researches.^{8,9,10,11}

9.6 Policy Implications

The management efficiency of the firms through their internal governance mechanisms and ownership structure are important to investors as it is to other stakeholders in the firm. Based on the conclusion derived from this study, some policies that could be helpful in stabilizing the market could be formulated. Some findings show that what is true for other market may not be true for emerging market like Nigeria. Its market is unpredictable and may be said to be highly uncertain due to the high level of government inconsistent policies and macro-economic factors in the market. Based on the findings, regulators will be encouraged to focus policies on certain board diversity like board gender diversity as the role of women and their inclusion on board is not clear in the Nigeria. The government needs to initiate a policy legislating for a quota of women director appointments on the firm corporate board and other strategic committees in Nigeria. The aim of this policy among others should be geared towards reducing work place segregation and cultural bias against women in the corporate boards of listed firms in Nigeria environment. Policy drive be initiated by the regulators in Nigeria to urgently encourage quota of foreigners in a firm board. This policy is capable of encouraging diversity in firm boards and the attendant spiral positive effects both in the short and long runs.

10.0 Conclusion

This research sought to examine how corporate board diversity mechanisms such as board gender and board nationality on financial performance of listed non-financial firms in Nigeria. The results portray that while board gender are significant corporate board diversity influencing firm financial performance in Nigeria, board nationality 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 increase the number of foreign executive. Their significant presence, cultural, educational and professional background in the firm will help to monitor and mitigate the tendency for hidden actions of the managers that could be detrimental to the very existence of the firm.
- ii. The board of directors of corporate organizations in Nigeria should restructure the board in terms of diversity. This will ensure there is adequate mix of directors consisting of female and male and nationality mix, size, educational qualification, professional training to possibly influence the operation performance of firms.
- iii. This study suggests that the government of Nigeria through the instrumentality of the National Assembly needs to legislate for female inclusion on corporate board in companies and also make it mandatory for those firms to engage in full disclosure of the proportion of female on the corporate board in compliance with the approved legislation.

10.2 Suggestions for Future Research

Other corporate board diversity mechanisms like board risk aversion, board religion, board political connection, audit committee nationality and gender should be examined by future researchers with varying operationalization,

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