CORPORATE GENDER DIVERSITY AND FIRM PERFORMANCE IN NIGERIA

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https://doi.org/10.37602/IJSSMR.2021.4202

ABSTRACT

This study evaluated the effect of corporate gender diversity and firm performance in Nigeria. The objective of the study is to evaluate the effect of the employee, senior management and board gender diversity on firm performance in Nigeria. The objective of the study employed secondary data, which is based on an ex-post facto research design and made use of panel data set collected from fourteen (14) selected quoted commercial banks for the period of 2011 to 2018 financial period. The data collected were analyzed using a descriptive statistic, correlation matrix. The Robust Least Square Regression Analysis Techniques. Our findings align with the Social identity theory, being another explanation of why diversity may have a negative outcome. Specifically, we find that employee, senior management and board gender diversity are statistically insignificant at 0.05 to firm performance of selected quoted firms in Nigeria during the period under review. Following the findings obtained from the study, we recommend among others that tight policy attention should not be accorded to gender diversity in Nigeria.

Keywords: Corporate gender diversity and firm performance

1.0 INTRODUCTION

The work environment is becoming more complex due to globalization and competition which as a result has necessitated the need for a workforce that is made up of people with varying age, experience, gender, knowledge and backgrounds to maximize competitive advantage (Ragins & Gonzalez, 2003). According to Childs (2005) organizations that want to gain competitive advantage must widen their perspective about workforce diversity and diversity management, and the management must commit themselves to ensure that diversity management is a part of its daily operations. 103,484,091 Current male population (50.6%) and 100,877,418 Current female population (49.4%) Nigeria is known to be the giant of Africa with a population of over 200 million people; 103,484,091 male (50.6%) 100,877,418 female (49.4%) and more than half the population consists of people of working age (Akinnusi, Sonubi, & Oyewunmi, 2017). Hence, there is a large pool of talent of which
organizations draw to achieve their goals. To manage the workforce, managers have created diversity policies that are in line with the Labour Act and other laws that have input in place to protect all kinds of employees from discrimination because of his or her social categorization (Ugwuzor, 2014).

As Ugwuzor (2014) citing Mustapha (2005) pointed out, in Nigeria, there appear to still be cases of tribalism, regional identities, nepotism and discrimination both in the public and private organizations. Cases of ethnic bias and other forms of discrimination still take places in organizations during hiring, promotion and other employer-employee relation practices. Hence, management is faced with the big challenge of managing its diverse workforce and the challenge of making sure that conflict of interest in policies and practice implementation are minimized (Akinnusi, Sonubi, & Oyewunmi, 2017).

Though some organizations train their new intake upon hiring on job-related issues yet, individuals still take decisions and showcase attitudes and behaviour that go against diversity principles. One reason could be that with diversity practices, employees enter into an environment that compels everyone to work together with other workers that are dissimilar to them. This kind of forced inclusion can create an environment of conflict amongst employees, discrimination and other challenges of diversity.

Another problem is the issue of organizations still depending on the old programs that they have been using over the years to manage the present issues of workforce diversity, minimize bias and increase diversity and inclusion in the workplace. It is important for management to know that the diversity plan that works or is encouraged by one organization may not work in another as it may be challenged by the hierarchical structure that is present in such an organization. For this reason, some organizational leaders lack the knowledge on how to effectively manage diversity, create an inclusive environment and what strategies to employ to assist them in dealing with issues of diversity in the organization.

From the web surf on workforce diversity, it was discovered that only very few researches on workforce diversity and its relative effect have been conducted in Nigeria. Some that exist, focused more on diversity effect on organizational performance or productivity, not so much have been done to unravel the effect of the stratified level of staff bracket on performance. Nigeria just like most countries of the world is diverse in its population content (e.g. people) and the people are ethnically or culturally diverse. Not only ethnically diverse, but it is also characterized by other aspects of diversity which are even evident in organizations (e.g.sex, role, managerial cadre, age, gender, educational background etc.) Therefore, this study seeks to add to the already existing literature on workforce diversity by examining empirically and theoretically, the concept of workforce diversity in terms of gender, and role and cadre and its effect on performance.

Arising from the above background, the objective of this study is to investigate the effect of employee diversity of quoted banks in Nigeria. However, the specific objectives are to:

1. Determine the effect of employee gender diversity performance of quoted banks in Nigeria.
2. Ascertain the effect of senior management gender diversity on the performance of quoted banks in Nigeria.
3. Investigate the effect of board gender diversity on the performance of quoted banks in Nigeria.

2.0 REVIEW OF RELATED LITERATURE

2.1 Conceptual Literature

2.1.1 Corporate gender diversity

This is one of the most emphasized forms of diversity in the employment debate in recent time. Klarsfeld, Booysen, Eddy, Roper, and Tatli (2012) affirms that societies and organization globally are becoming increasingly diverse over the past decades. Employment equity and workforce diversity have featured steadily on the business agenda. Historically, corporate gender has largely been a male consortium. In recent years, this practice has been challenged as many companies, have recognized the value of having a gender-balanced workforce.

Corporate gender diversity is defined for this study as the ratio of women to total employee size on the employment row of sampled companies across the strata. In diversity management parlance, many contemporary debates about the value of diversity in the workforce view this concept in an instrumental way. The view suggests that diversity is a means to another end, such as improved employee productivity and morale, higher customer satisfaction, or higher shareholder value (Shin and Gulati, 2011).

2.1.2 Employee Gender Diversity

Corporate organizations are managed in such a way that the employees are also known as staffs are hired at the entry point or level. At other times, they are hired with experience to work at a level higher than entry-level. an employee under the common law can be defined as a person who performs work or services under the supervision and control of another in exchange for remuneration or reward on such terms and conditions as agreed upon by the parties. However, it must be noted that not everyone who works is an employee under a contract of employment. One unique category is that of independent contractors who work under a contract of work. Mischke (2002) defines an independent contractor as a person who is hired by another to do a specific task, with the person letting out the work being the principal and the one doing the work being the agent.

This study views employee gender diversity as an equitable or fair representation of people of different genders between entry-level to the rank immediately lower than an assistant general manager. It most commonly refers to an equitable ratio of men and women, but may also include people of non-binary genders. It is computed as the ratio of women to the total number of employees

2.1.3 SENIOR MANAGEMENT of GENDER DIVERSITY
The concept of diversity encompasses acceptance and respect. It means understanding that each individual is unique, and recognizing the individual differences. These can be along the dimensions of race, ethnicity, gender, socio-economic status, age, physical abilities, religious beliefs, political beliefs, or other ideologies. It is the exploration of these differences in a safe, positive, and nurturing environment and it is about understanding each other and moving beyond simple tolerance to embracing and celebrating the rich dimensions of diversity contained within each individual.

Gender diversity within senior management teams has become an increasingly topical issue for three related reasons. First, although the proportion of women at the board level generally remains very low, it is changing. Second, government intervention in this area has increased. Different countries around the globe have passed legislation mandating female board representation. Third – and most interesting – the debate around the topic has shifted from an issue of fairness and equality to a question of superior performance. If gender diversity on the board implies a greater probability of corporate success, then it would make sense to pursue such an objective, regardless of government directives (Curtis et al., 2012). The organizational performance comprises the actual output or results of an organization as measured against its intended outputs (or goals and objectives) expressed in terms of financial performance (profits, returns on assets, return on investment), product market (sales, market share), shareholder return (total shareholder return, economic value added) and non-financial (strategic planning, operations, finance, legal, and organizational development, customer service, employee stewardship, corporate social responsibility: community outreach, corporate citizenship) aspects (Catalyst, 2004; Curtis et al., 2012; Mckinsey, 2015; Christiansen et al., 2016).

This study defines senior management gender diversity as the ratio of women to a total number of staff in the senior management cadre between the ranks of Assistant general manager to General Manager in the employment of the listed sampled banks.

2.1.4 BOARD GENDER DIVERSITY

The Board of the director is portrayed and conceptualized differently in writing including the number of independent directors, the tenure of boards, the size of the board and board gender diversity. Gender diversity as a part of board organization/assorted variety is in this manner a marker of corporate administration. Dutta and Bose (2006) present board gender diversity as the nearness of females on the governing body and term it a significant part of board diversity. Corporate governance has not understood gender diversity, yet this situation is imitated around the world (Dutta and Bose, 2006). Incorporate administration circles, board gender diversity alludes to the consideration or nearness of female chiefs in the sheets (Ekadah and Mboya, 2012).

Contemporary organizations are progressively moving toward board gender diversity as a worth driver in the authoritative system and corporate administration (Marinova, Plantenga, and Remery, 2010). The subject additionally stays a new territory of worry for open discussion, scholastic research, government contemplations and corporate technique over the social scene just as in the boardroom and top executive positions. Board diversity in percentage is computed as the female directors to total board size.
2.2 Conceptual framework of variables

![Conceptual Framework Diagram]

Fig 1. Researcher’s concept (2019)

2.2.0 Theoretical Framework

This study is anchored on a number of theories as they have a direct bearing on the study. The theories that shaped this study are Resource dependency, signalling and social identity theory.

2.2.1 Resource dependency theory was proposed first by Pfeffer and Salancik, (1978).

They posit that firms operate in an open system and needing to exchange and, or acquire certain resources in order to survive, making the firms dependent on external units in their environment. In view of this, corporate governance must ensure that firms seek a relationship with the most beneficial resources and also structure board membership on this basis. Pfeffer and Salancik (1978) noted that directors bring merits to organizations via; advice or counsel, channels of information and access to resources. Increasingly, firms are challenged with a complex and volatile macro environment, and this dynamic environment requires leadership from diverse groups of individuals who can provide a broad set of resources that will fit into the new business culture. Resource dependency theory, therefore, concludes that the best performing management teams should consist of members that represent the variety in terms of experience, working background, age, ethnicity, and gender.

Carter, Simkins and Simpson (2003) and Carter, D’Souza, Simkins and Simpson (2008) enumerated several positive propositions of the business case for board gender diversity, among which this is a central one.
Summarizing several of the positive theoretical underpinnings for diversity, Smith, Smith and Verner (2006) elaborated the arguments and provide intuitive examples. Firstly, women directors may better understand particular market conditions than men, which may bring more creativity and quality to board decision-making. Secondly, a more gender-diverse board may generate a better public image of the firm and, through this, improve firm performance. Thirdly, it is possible that the external talent pool for board members increases once women have been appointed to particular executive positions. Furthermore, research shows that the number of female top managers may influence positively the career development of women in lower positions, thus boosting firm productivity directly as well as indirectly—i.e. by enlarging the internal pool of candidates for top positions.

There is a strong relationship between diversity and firm performance. Diversity could lead to a company’s competitive advantage (Abdullah 2014; Lückerath-Rovers 2013) Empirical research supports the argument that a gender-diverse workforce is positively linked to an organisation’s performance. McMillan-Capehart (2003) used the resource-based view of the firm to argue that gender and racial diversity can provide a firm with a competitive advantage. Of the author’s 12 predictions, the study’s results supported only the prediction of a positive relationship between organizational gender diversity and return on equity.

2.2.2 Social identity theory is another explanation of why diversity may have a negative outcome. Social identity theory suggests that when we first come into contact with others, we categorize them as belonging to an in-group (i.e., the same group as us) or an out-group (not belonging to our group).

We tend to see members of our in-group as heterogeneous but out-group members as homogeneous. That is, we perceive out-group members as having similar attitudes, behaviours, and characteristics (i.e., fitting stereotypes). Researchers posit that this perspective may occur because of the breadth of interactions we have with people from our in-group as opposed to out-groups. There is often strong in-group favouritism and, sometimes, derogation of out-group members. In some cases, however, minority group members do not favour members of their own group.

The study examines whether recruiter-applicant demographic similarity affects selection decisions. In addition, the mediators proposed by the similarity-attraction paradigm were tested. However, consistent with Graves and Powell’s (1995) findings and with the propositions of social identity theory, I also proposed that female recruiters would prefer male applicants. Significant race similarity effects were observed for White recruiters on overall interview assessments and offer decisions, sex dissimilarity had a significant direct effect on overall interview assessments, and age similarity was not related to either criterion. In addition, there was some evidence that the significant direct effects were mediated by perceived similarity and interpersonal attraction. The sex dissimilarity effect appeared to be the result of male recruiters’ preference for female applicants. Post hoc analyses revealed that this relationship was mediated by applicant appearance.

2.2.3 Signaling Theory

Propounded by Andrew Michael Spence in 1973, the signalling theory relates to a substantial body of academic work in economical contract theory focusing on information asymmetries
between multiple entities, such as individuals or organizations. In particular, signalling theory is concerned with how one entity—the agent or insider—may undertake actions to signal its underlying quality to reduce information asymmetries. This underlying quality is often hard to observe or unobservable to another entity—the principal or outsider (Connelly, Certo, Ireland, and Reutzel, 2011). Signalling theory, therefore, revolves around “problems of social selection under conditions of imperfect information.”

In line with gender diversity as a signal tool, two basic issues arise vis-à-vis the clarity of the message it sends to constituencies and the potential for fake signalling and mimicry (Shin and Gulati, 2011). In certain respects, gender diversity could be a more effective signal than policies with respect to stakeholder interests or risk attitude, since it has the potential to operate ex-ante before a decision is made. In other respect, fake signals are however not sustainable in a repeat game scenario since the market is capable of distinguishing between fake signals and reflect the company’s true policy. (Connelly et al 2011) we employ the Signaling theory in this study with the prospect that it is a mechanism that balances the board’s need for decision-making discretion with commitments to stakeholders.

This theory is relevant to this study as the firm management can use an improved gender diversity in the board composition to send out clear market information to all stakeholders that they are gender-friendly/unbiased. This in turn can trigger improved patronage, improved profit and increased stock price.

2.3 Review of empirical study

The duo of Lincoln and Adedoyin, (2012) maintain that in recent times, corporations are increasingly under pressure to ensure diversity within their boardrooms and a large number of academic research have reported findings consistent with the view that boards perform better when they include a diverse range of people. They maintain that women have unique characteristics needed to positively influence the strategic direction of a corporation and contribute to the growth of firms. In spite of such revelations, evidence suggests that women are under-represented in senior executive and board positions. In many parts of Africa, socio-cultural traditions inhibit women from attaining these roles. Given the emphasis placed on board diversity and the inclusion of women as an essential part of good corporate governance, the relationship between gender diversity and board effectiveness deserves both theoretical and empirical investigation. This research is important because it represents the first theoretical review on gender diversity in corporate boards in Nigeria.

Rozmina and Mwangi (2015) examined the impact of board gender diversity on the profitability of the agricultural listed companies in the Nairobi Securities Exchange over the period 2008 to 2015. Profitability was measured using Tobin’s Q as a market-based measure, and Return on assets (ROA) as an accounting-based measure. Panel data was analyzed using Fixed Effect model and Random Effect model. The results for FEMDIR are mixed and different depending on the measure of profitability. They are negative and significant when using Tobin’s Q and positive and statistically insignificant when ROA is used as the measure of profitability. The moderating variables also give different results depending on the profitability measure. BRDSIZE is negative and statistically significant when using Tobin’s Q and is positive and insignificant when using ROA as the profitability.
measure. FIRM SIZE is negative and statistically significant when using Tobin’s Q and positive and insignificant when using ROA. Irrespective of the profitability measure used, PWDIR was found to be positive and statistically significant. This means that the presence of women on boards of agricultural listed firms will lead to increased profitability. The study recommends that agricultural firms listed at the NSE should ensure that they include women on their boards since the presence of women on boards is found to impact profitability positively.

Simbarashe, Hlanganipai, Wiseman and Sam(2018) opined that gender and ethnicity issues such as discrimination, prejudice and sexual harassment prevail within organizations in South Africa. Although there has been an improvement in workforce diversity in South Africa. This is because organizational leaders view diversity as a matter of legal compliance instead of as a value addition to organisational growth and profitability. Based on this, it is important for organisations to understand the economic side of diversity and not just be content with having such a workforce.

International finance cooperation (2019) suggested that in an increasingly fast-paced and ever-changing global market, companies need to sustain a competitive advantage, and having a diverse corporate board definitely supports the achievement of that objective. It cannot be overemphasized that board diversity is critical for sustainability.

The survey identified strong financial performance and improved board effectiveness as key benefits of women in the boardroom. Having women on the board sends a strong message that a company is progressive. Boards that mirror society can better understand the needs and preferences of their clients, and this can lead to improved product development, more effective product marketing, and better customer relations. Despite these benefits, the survey showed that women are still underrepresented on corporate boards in Nigeria. Survey respondents and interviewees identified a number of reasons for this, including cultural, sociopolitical, and organizational factors. One argument against actively seeking gender parity on the board stems from a concern that too much diversity and independence of thought can hurt board cohesion. This is clearly a fallacy.

Ursil and Fayaz(2018) hold that Workforce diversity can be defined as a broad mix of people from different backgrounds, cultures etc working together in the same organisation. Diversity provides both challenges and opportunities for organisations. The different dimensions of diversity may have different effects and outcomes within the organisation, and thus the effect of one dimension cannot be generalized for all the others. The purpose of this paper is to review the various studies pertaining to the relationship between workforce diversity and organizational/employee performance. Different empirical papers were reviewed which were selected keeping in view the different criteria laid down by the researcher. The study adopted a review methodology by conducting a literature search concerning workforce diversity and organizational/ employee performance for the period 1990-2014. The results presented in this paper show evidence of empirical relationship among organizational performance and have been found to be contradictory, giving mixed results.

Despite efforts aimed at optimizing the performance of firms in Nigeria, a nation of many diverse people, not much appears to have been achieved. To address this lacuna, primary data was collected from Forty-two registered firms in South-South Nigeria using a five-point Likert-type scale questionnaire and personal interviews. The Spearman Rank Order Correlation Coefficient at 95% confidence level and the Hierarchical Multiple Regression model were used to analyse the data. The findings revealed that the apparent low-performance rate of the Study firms may be traceable to poor management of surface and deep-level diversity. To optimize Corporate Performance, therefore, it was recommended that managers should ensure that employees are “not at all” disturbed by issues bothering on diversity as raised in this Paper. The study was anchored on Social identity theory (Tajfel, 1978).

Doris, Mary and George (2016), examined the way various elements of workforce diversity namely; age, gender, work experience and culture can significantly influence the performance of organizations with specific reference to telecommunication firms in Kenya. Workforce diversity was opined to have evolved to be a moral, social, and economic factor as well as a legal responsibility of employers. The value of diversity in the workplace is also becoming a key business consideration of most organizations. Close and continuous attention to the issues of workforce diversity is important because it can be a major source of competitive advantage. It can also be a source of organizational conflict leading to poor employee relations and low employee engagement. Workforce diversity issues may also adversely affect an organization’s public reputation, competitiveness and can significantly threaten the bottom line. The study went further to examine whether employee engagement moderates the relationship between workforce diversity and organizational performance. Based on the review of literature, the article developed a conceptual model that explains how the integration of various workforce diversity elements may influence the performance of organizations. Blau’s Theory of Heterogeneity, Social Categorization Theory, Similarity/Attraction Theory, Resource-Based View Theory and Strategic Choice Theory was a guide for this study.

Akpakip and Christiana (2017) examined the effects of workforce diversity on employee performance. The survey research design method was adopted for the paper. The instrument used to gather relevant data for the study was the questionnaire. The study centred on the Nigerian Banking Sector to examine the level of diversity practised in terms of gender, age, ethnicity and educational in Nigerian Organizations. First Bank of Nigeria Plc, Ota, Ogun State was the focal organization. A total of 81 copies of the questionnaire were disseminated to the respondents of the study and they were all filled and returned and also relevant for the study. In order to attain the research objectives, four hypotheses were created. The data were collated and analyzed using the Statistical Package for Social Sciences (SPSS) percentages and frequencies tables were used for the descriptive aspects. To test the hypotheses, Spearman Rank Correlation Coefficient Analysis was adopted, Regression Model, Anova was adopted to examine the relationship between variables and identify the influence of the independent variables on the dependent variable. The limitation to the study is that the study made use of only a few aspects of workforce diversity and as such, findings cannot be generalized to cover other dimensions of diversity not covered in the study. The research findings showed all aspects of workforce diversity used in the study has a significant relationship with employee performance except for ethnic diversity. It was
also discovered that gender, age and educational diversity have a strong influence on employee performance.

Based on findings, a recommendation that management continues to uphold its diversity policies and practices in order to increase the benefits of diversity was made. Management should ensure that all employees are properly trained on diversity issues as this training will also help employees to change those unconscious behaviours that hinder diversity and inclusion practices. Similarity-Attraction Paradigm, social identity theory, Social Categorization Theory, Human Capital Theory Explaining Age Diversity, Information and Decision Making Theory was the basis for the study.

Temile, Jatmiko and Hidayat (2018) empirically examined the impact of gender diversity, earnings management practices and corporate performance of quoted firms in Nigerian. The study was motivated by the nature of the Nigerian business environment and the need for effective corporate performance by firms in different sectors of the economy; hence providing an empirical argument for future researchers who may want to build on its findings. To achieve the set objective of this study, we obtained data from the annual reports of fifty firms quoted on the Nigerian Stock Exchange (NSE). The study is empirical in nature and adopted the survey research design to implement simple random sampling. Furthermore, the Panel Data Regression estimation technique was employed to estimate the specified model of the study.

The results revealed that female chief executive officers have a negative but insignificant impact on the financial performance of firms in Nigeria, while the female chief financial officer has a positive and significant relationship with financial performance. The result also shows that variables such as female membership and audit committees have a negative and insignificant relationship with corporate performance. However, the higher the proportion of females on the board, the better the performance of firms in Nigeria. The study recommended that the management of various companies should formulate and implement policies that will include gender diversity on the board in order to stimulate earnings management and other performance measures in the right direction. This invariably would positively influence the market value per share of their companies.

Yukiko (2015) presented empirical evidence testing whether increasing gender diversity is associated with improved firm performance for Japanese listed companies, which have different cultural backgrounds from Western companies, after controlling for size and firm age. As Worthley MacNab, Brislin, Ito and Rose(2009) pointed out, the growing importance of the Japanese female workforce under global competition requires a better understanding of gender-related issues in organizational management which is undergoing a transformation from their rooted traditional managerial habits, such as seniority-based promotion, lifetime employment, paternalism, or prioritizing corporate harmony, which favour men.

The study found statistically significant positive relationships between managerial gender diversity and one measure of firm performance, Tobin’s q, without a long time lag required for it to be realized.

GAP IN LITERATURE
Several studies have been conducted on gender diversity and firm performance. Yukiko (2015), Temile, Jatmiko, and Hidayat (2018); Suleiman, Modar and Fida (2018), Doris, Mary and George (2016); Miebi (2014); Ursil and Fayaz (2018) and a host of other related studies in Nigeria. However, none of these prior studies has done empirical work using panel data analysis with the proxy of strata of the workforce - employee, managerial and board gender diversity to determine their respective effect on firm performance. The gap we want to fill is based on the existing literature used above and the varying methodology employed.

**METHODOLOGY**

This study adopted a research design known as ex-post-facto research design which is hinged on two major reasons: basically, the study is based on historic accounting data obtained from financial reports of the sampled companies; in this regard, the researcher does not intend to control or manipulate the data of the study variables which is a basic feature of ex-post-facto research design. Again, we follow the views of Gujarati, (2003) which suggests that in determining the cause-effect position between the independent and dependent variables with a view to establishing a causal link between one best research designs available is the ex-post facto research design. The population of this study consists of all twenty-six licensed banks in Nigeria. From the population, only banks with international and national authorization were selected for the study. The bank must have also commenced operation by the 2011-the study base year. The bank should not have ceased operation in whatever form between 2011 and December 2018.

The study focused on a population of twenty-six licensed banks in Nigeria thus

<table>
<thead>
<tr>
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</tr>
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<tr>
<td>Commercial banks with International Authorization in Nigeria</td>
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<tr>
<td>Commercial banks with National Authorization in Nigeria</td>
<td>10</td>
</tr>
<tr>
<td>Commercial banks with Regional Authorization in Nigeria</td>
<td>2</td>
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<tr>
<td>Non-interest banks in Nigeria</td>
<td>1</td>
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<tr>
<td>Merchant banks in Nigeria</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
</tr>
</tbody>
</table>

The sample size is drawn from eight commercial banks with International Authorization and ten commercial banks with National Authorization in Nigeria. The banks must have been listed on the Nigeria stock exchange by 2011 and publish their annual report and account for the period under review. The bank must also be an inactive in banking operation with the same listed name. The period of eight years from 2011-2018 is considered significant enough to identify any pattern or trend and the choice is a result of accessibility, reliability and evenness of the dataset. Furthermore, the variables adopted for this study include Board Gender Diversity, employee gender diversity and senior management gender diversity.
3.7.1 Model Specification

The following model is used to examine the impact of corporate governance mechanism on the stock price performance of quoted banks and construction/real estate companies in Nigeria. Put simply we show that stock price performance is a function of corporate board mechanism shown in the equation below as:

\[ \text{ROA} = f (\text{Employee gender diversity}, \text{senior management diversity and board gender diversity}) \ldots (1) \]

This can be re-written in explicit form as:

\[ \text{ROA} = \alpha + \beta_1 \text{EMPGD} + \beta_2 \text{SENGD} + \beta_3 \text{BODGD} + \varepsilon \ldots \ldots (2) \]

And can be written econometrically as:

\[ \text{ROA} = \alpha + \beta_1 \text{EMPGD} + \beta_2 \text{SENGD} + \beta_3 \text{BODGD} + \varepsilon_t \ldots \ldots (3) \]

Since we employed panel data set we capture both time and cross section effect with the equation below

\[ \text{ROA}_{it} = \alpha + \beta_1 \text{EMPGD}_{it} + \beta_2 \text{SENGD}_{it} + \beta_3 \text{BODGD}_{it} + \varepsilon_{it} \ldots \ldots (4) \]

Table 3.1 Variables Definitions and Measurements

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measurements</th>
<th>source</th>
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<tr>
<td>Corporate gender diversity</td>
<td>The ratio of women to total employee size on the employment row of sampled companies across the strata</td>
<td>Shin and Gulati, (2011).</td>
</tr>
<tr>
<td>Employee gender diversity</td>
<td>employee gender diversity as equitable or fair representation of people of different genders between entry level to the rank immediately lower than assistant general manager. It most commonly refers to an equitable ratio of men and women, but may also include people of non-binary genders. It is computed as the ratio of women to total number of employees</td>
<td>Mishke (2002)</td>
</tr>
<tr>
<td>Senior management gender diversity</td>
<td>This study defines senior management gender diversity as the ratio of women to total number of staff in the senior management cadre between the rank of Assistant general manager to General manager in the employment of the listed sampled banks.</td>
<td>Author (2019)</td>
</tr>
</tbody>
</table>
Board Gender Diversity

Female directors is the total number of female executive and non-executive directors in the board of a company excluding company secretary

Broome, Conley and Krawiec, 2011).

3.8 Method of Data Analysis

The method of data analysis employed in this study is the Robust least-square panel regression technique which addresses the effect of Heteroskedasticity traceable to time and cross-sectional effect inherent in the data set. The traditional Ordinary Least Square (OLS) regression technique assumes that the variance of the error term is constant and the same for all observations (homoscedastic) which is not usually the case (Adren 2007). Hence, OLS regression in the presence of Heteroskedasticity does not make use of the information contained in the unequal variability of the dependent variable. However, when this effect is addressed, the estimation is capable of producing Best Linear Unbiased Estimates (BLUE) (Gujarati 2004). Therefore, the study conducts some robustness tests on the results which include Multicollinearity, and Heteroskedasticity test, in addition to the normality of the residua. The estimation results were evaluated based on individual statistical significance test (t-test) and overall statistical significance test (F-test) and the goodness of fit of the model was tested using the coefficient of determination (R-squared). The analysis was performed using STATA 14 software package.

4.0 DATA PRESENTATION AND RESULTS

The study investigates corporate gender diversity and firm performance in Nigeria. Samples from listed banks in Nigeria between the periods of 2011 – 2018 were adopted. In this study, the performance was measured by return on asset (ROA), corporate gender diversity was proxy board gender diversity (BODGD), senior management gender diversity(SMGD) and employee gender diversity(EMPGD).In testing for the formulated hypotheses in this study, a robust least square regression analysis was adopted. However, some posttest which includes: the Variance Inflation Test (VIF) to detect the presence of multicollinearity and the test for heteroscedasticity was equally conducted. In addition, we cater to the assumption of “Omitted Variable Bias” by employing the Ramsey RESET Specification Test. We also perform preliminary pre-regression analysis such as descriptive statistics, correlation matrix and normality test, the results are analyzed as follows.

DESCRIPTIVE STATISTICS

The table below shows the descriptive statistics of the banks that make up our sample of the study.

<table>
<thead>
<tr>
<th>Variables</th>
<th>ROA</th>
<th>EMPGD</th>
<th>SMGD</th>
<th>BODGD</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAN</td>
<td>1.393839</td>
<td>2.593311</td>
<td>5.837321</td>
<td>5.114018</td>
</tr>
<tr>
<td>MAX</td>
<td>5.62</td>
<td>3.92</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>MIN</td>
<td>-9.53</td>
<td>1.62</td>
<td>1.75</td>
<td>2.71</td>
</tr>
</tbody>
</table>
The above table reveals that the mean value of return on asset (ROA) among the sampled firms was 1.3938. The maximum value for the study was 5.62 while the minimum value was -9.53. This, therefore, means that companies with higher or equal to the median value of 1.33 are higher profit-making firms. However, companies with a value below 1.33 are low profit-making firms.

We also observed that the averaged employee gender diversity for the sampled firms was 2.59. The senior management gender diversity value stood at 5.83 which mean that firms above 2.59 are highly employee diversified. In the case of board gender, the average value was 5.11 which mean company above 5.11 are considered as having adequate female board members.

4.2 Correlation Matrix

In examining the association among the variables, we employed the Pearson correlation coefficient (correlation matrix) and the results are presented in the table below.

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>EMPGD</th>
<th>SMGD</th>
<th>BODGD</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMPGD</td>
<td>-</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMGD</td>
<td>-</td>
<td>0.0061</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>BODGD</td>
<td>-0.3763</td>
<td>0.0379</td>
<td>-0.753</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Source: Authors computation (2019)

In the results above, we observed that Return on asset (ROA) was negatively and weakly associated with employee gender diversity (EMPGD), SMGD and BODGD. There exists a positive and weak association between employee gender diversity (EMPGD) SMGD and BODGD. In the case of SMGD, there exist a negative relationship with BODGD(SMGD/BODGD=-0.75).

Correlation implies the existence of a linear association between two or more explanatory variables. The correlation makes it difficult to differentiate the individual effects of the explanatory variables hence, the regression estimators may be biased in that they tend to have large variances Murray, (2006). Furthermore, if there is a perfect linear correlation among the variables of interest, the estimates for a regression model cannot be uniquely computed. The possible existence of correlation is tested based on the correlation matrix incorporating both dependent and independent variables. Pearson Correlation Matrices suggest that correlation coefficients must be less than 0.8; this is the limit or cuts off correlation percentage commonly suggested by prior studies after which colinearity is likely to be present (Gujarati
High correlation among predictors means you can predict one variable using the second predictor variable. This is called the problem of multicollinearity. This results in unstable parameter estimates of regression which makes it very difficult to assess the effect of independent variables on dependent variables. The SE of such parameters becomes very high. Taking a cursory look at table 4.2 above the result suggests that there is no need to worry about the consequences of multicollinearity. However, the association among the independent variables is further tested with a more advanced technique of the Variance Inflation Factor Test (VIF). Therefore, in examining the association among the independent variables, the study employed

4.1.4 Further Test for Multicollinearity with Variance Inflation Factor (VIF)

Table 4:4 Variance Inflation Factor Test Result

<table>
<thead>
<tr>
<th>variables</th>
<th>VIF</th>
<th>1/VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPGD</td>
<td>1.01</td>
<td>0.992857</td>
</tr>
<tr>
<td>SMGD</td>
<td>1.01</td>
<td>0.994246</td>
</tr>
<tr>
<td>BODGD</td>
<td>1.00</td>
<td>0.998486</td>
</tr>
<tr>
<td>MEAN VIF</td>
<td>1.00</td>
<td></td>
</tr>
</tbody>
</table>

According to Gujarati (2003), there is no consequence if the mean VIF is not far away from 10. Table 4:3 below presents the mean-variance inflation factor (VIF) of the explanatory variables. However, the result depicts the absence of the consequences of multi-collinearity in the model used for the analysis since the mean VIF is within the region of 10 against which the presence of multicollinearity may be suspected.

4.1.2 Data Normality Test

Table 4:2 Data Normality Test Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Adj chi2</th>
<th>Prob&gt;chi2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>112</td>
<td>0.0000</td>
<td>0.0000</td>
<td>56.19</td>
<td>0.0000</td>
</tr>
<tr>
<td>EMPGD</td>
<td>112</td>
<td>0.0000</td>
<td>0.0057</td>
<td>23.14</td>
<td>0.0000</td>
</tr>
<tr>
<td>SMGD</td>
<td>112</td>
<td>0.0000</td>
<td>0.1906</td>
<td>17.73</td>
<td>0.0001</td>
</tr>
<tr>
<td>BODGD</td>
<td>112</td>
<td>0.0000</td>
<td>0.0000</td>
<td>57.31</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

In statistics, normality tests are used to determine if a data set is well-modelled by a normal distribution and to compute how likely it is for a random variable underlying the data set to
be normally distributed. Here, the rule of thumb states that if the probability value of the variable of interest is significant at 1% or 5% then the variable is not normally distributed. However, the result is shown in table 4:2 of skewness, and the kurtosis test for normality shows that all the variables of interest are normally distributed since they are all insignificant at either 1% and 5% level of statistical significance.

Table 4:5 Heteroscedasticity Test Results

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of ROA
chi2(1) = 30.65
Prob > chi2 = 0.0000

The test for heteroscedasticity is employed to find out whether the variances of the errors from regression are dependent on the values of the independent variables. In that case, heteroskedasticity is present. Heteroscedasticity is a problem because Ordinary Least Squares (OLS) regression assumes that all residuals are drawn from a population that has a constant variance (homoscedasticity). According to Hsiao (2003), ‘it is only by taking proper account of selectivity and heterogeneity biases in the panel data that one can have confidence in the results obtained. Hence to satisfy the regression assumptions and be able to trust the results, the residuals should have a constant variance. However, from the table above, we accept the alternative hypothesis of heteroscedasticity in the data set since the P>chi2 (0.0000)is significant at 5%. However, in correcting for the effect of heteroscedasticity, we resulted in the use of Robust Regression Analysis. (Gujarati 2003)

In this study, the Breusch-Pagan / Cook-Weisberg test was used to test for the presence of heteroscedasticity in the data set employed for the study. Specifically, the result revealed the presence of heteroscedasticity in the data set evident from the probability chi-square value of 0.0000, which is statistically significant at a 5% level. However, in correcting for the effect of heteroscedasticity, we employ the Robust Regression Analysis provided below.

Table 4.6 Robust Least Square Regression Result

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>ROBUST</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPGD</td>
<td>-0.9293</td>
</tr>
<tr>
<td>Coefficient</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>-2.34</td>
</tr>
<tr>
<td>P</td>
<td>0.021</td>
</tr>
<tr>
<td>SMGD</td>
<td>-0.2128</td>
</tr>
<tr>
<td>Coefficient</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>-4.35</td>
</tr>
<tr>
<td>P</td>
<td>0.000</td>
</tr>
<tr>
<td>BODGD</td>
<td>-0.0704</td>
</tr>
<tr>
<td>Coefficient</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>-1.27</td>
</tr>
</tbody>
</table>
4.2 Regression Result

From the table above, we observed an R-squared value of 0.1725 which indicate that about 17% of the systematic variations in firm performance have been jointly explained by the independent variables over the period under investigation. This implies that the independent variables adopted in this study have not been able to completely explain the variations in firm performance hence the remaining unexplained 83% variations lies in the error term. In addition to the above, the specific findings from each explanatory variable from the robust least square regression models are provided as followings:

HYPOTHESIS 1: Employee gender diversity has no Significant Effect firm Performance of selected quoted banks in Nigeria

The robust least square regression model presented above show the variable of employee gender diversity (EMPGD) (Coef. = - 0.9293, t = -2.34 and P-value = 0.021). Following the results above, it is revealed that the effect of employee gender diversity on firm performance of selected quoted banks in Nigeria is negative and statistically significant. This finding supports prior expectation such that a one-member increase in the number of females will significantly reduce the firm performance of the sampled banks. Based on the result, the study rejects the null hypothesis. The study concludes that employee gender diversity has a negative statistical significant effect on firm performance of selected quoted banks in Nigeria.

HYPOTHESIS 2: Senior management gender diversity has no significant effect on selected quoted banks in Nigeria

The robust least square regression model presented above show the variable of board independence (SMGD) (Coef. = -0.2128, t = -4.35 and P-value = 0.000). Following the results above, it is revealed that the effect of senior management gender diversity on firm performance of selected quoted banks in Nigeria is negative but statistically insignificant. This finding agrees with a priori expectation since we expect senior management gender diversity to positively improve firm performance. Based on the result, the study accepts the null hypothesis and concludes that senior management gender diversity has no statistically significant effect on firm performance of selected quoted banks in Nigeria.

HYPOTHESIS 3: Board Gender Diversity has no significant effect on firm Performance of selected quoted banks in Nigeria

The robust least square regression model presented above show the variable of board gender diversity (BODGD) (Coef. = -0.0704, t = -1.27 and P-value = 0.209). Following the results above, it is revealed that the effect of board gender diversity on firm performance of quoted banks in Nigeria is positive and not statistically significant. This result suggests that as the proportion of women directors on the board increases, the firm performance was positively
improved. This result negates apriori expectation hence we reject the alternative hypothesis and conclude that board gender diversity has a statistically significant positive effect on the firm performance of banks in Nigeria.

4.3 Discussion of Findings

4.3.1 Employee gender diversity

The finding of this study concludes that employee gender diversity has a negative statistical significant effect on firm performance of selected quoted banks in Nigeria. This suggests that a unit change in the number of female employees will have no effect on firm performance. This is in tune with the outcome of a study conducted by Ursil and Fayaz(2018).

4.3.2 Senior management of gender diversity

Senior management gender diversity has no statistically significant effect on the firm performance of selected quoted banks in Nigeria. This means that a decrease or increase in the ratio of the female senior management team will have no significant effect on firm performance. This position was corroborated by the study of Lailah(2018) which holds that the study was not able to provide significant evidence in terms of gender on the Performance. The results underline the importance of improving the number of woman representation in top management in public companies in Indonesia.

4.3.3 Board gender diversity

The study of Dehaene et al. (2001) posits that an efficient and effective board is vital for better firm performance. The researchers argue that boards with more members are considered to obtain diverse resources at low cost which result in better performance. Their arguments go further to suggest that a large board offers diverse knowledge and expertise that acts to mitigate agency–principal conflict and bring different perspectives into the organization. Consistent with Rosener (1995), one female board member is often dismissed as a token and two females are not enough to be taken seriously. But three may give the board a critical mass and the benefit of women’s talents. We find that the inclusion of one more member on the board instigates agency conflict causing a drop in stock price performance of banks and construction/real estate firms in Nigeria. The main reason is that the increasing number of board members increases conflicts of interest among the directors in effective decision making hence suitable actions cannot be taken on time, thus affects the firm performance.

Our finding support that of Rose (2007) who argue a plausible reason why board gender diversity does not provide quality firm performance – noting that there may be a process of socialization where the unconventional board members have adopted the behaviour and norms of the conventional board members and business leaders. The reason is that it may be the only way to be qualified in the eyes of the top decision-makers for high positions in society including access to boardrooms. As a consequence, the gains from having female board members are never realized or reflected in performance. For example, the representation of women on the boards of quoted companies in Nigeria is quite low. In 2005
the Government of Norway, introduced mandatory quotas, i.e. 40 per cent of women on the boards. They argue that diversity is a value in itself (Oslo 2007). Spain followed suit by passing a law, and Germany and The Netherlands followed a similar course beginning with voluntary charters dedicated to gender equality in boardrooms (Toomey 2008).

5.0 SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 Summary of Findings

This study investigated corporate gender diversity and firm performance in Nigeria. The study employed financial quoted companies in Nigeria that have consistently published their audited annual financial report between 2011 and 2018. A list of fourteen (14) quoted commercial banks listed on the Nigeria stock exchange formed the sample of this study; to ensure adequate observation for statistical testing; we rely on robust least square regression analysis to identify the possible gender range that affects the firm performance of selected Nigeria quoted companies. In pursuant, we conducted descriptive statistics, correlation matrix, data normality test, variance inflation factor test, test for heteroscedasticity. Our empirical results held that:

1. Employee gender diversity has an insignificant negative effect on the firm performance of quoted banks in Nigeria.
2. Senior management gender diversity has a negative but statistically insignificant effect on the firm performance of quoted banks in Nigeria.
3. Board gender diversity has board negative and statistically significant effect on firm performance of quoted banks in Nigeria

5.2 Conclusion

In this study, we noted that corporate gender diversity has not been effective in improving the performance of selected quoted in Nigeria. The study then concludes that increasing the number of females in an employee, senior management except the board cadre did not especially improve firm performance which was measured by return on asset (ROA).

5.3 Recommendations

Based on the findings obtained above, we recommend that,

1. Board gender diversity enhancement should be a policy focus of sampled banks as it showed a sign of improving profitability. However, it can be tilted towards higher values above 21% of total board members.

This study on ‘corporate gender diversity and firm performance in Nigeria becomes one of such studies conducted by employing Return on the asset. The study employed quoted companies with international and national authorization and analyzed the data with robust least square regression analysis. Furthermore, we proxied gender diversity by the employee, senior management team and board which to the best of our knowledge no researcher(s) in Nigeria has adopted in a related study.
We develop a new model which is specified as follows

\[ \text{ROA}_{it} = \alpha + \beta_1 \text{EMPGD}_{it} + \beta_2 \text{SENGD}_{it} + \beta_3 \text{BODGD}_{it} + \epsilon_{it} \]

5.5 Suggestion for Further Studies

The researcher has conducted the study on ‘corporate gender diversity and firm performance in Nigeria” with sample size from commercial banks with international and national authorization in Nigeria, hereby recommends that further studies can be carried out on the same topic on other classes of banks in the sector of the economy in Nigeria.

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