



CORPORATE BOARD HETEROGENEITY AND NON-FINANCIAL PERFORMANCE

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Article History

Received: 11/02/2025

Accepted: 02/03/2025

Published: 05/03/2025

Vol – 1 Issue – 1

PP: -40-48

Abstract

The study evaluated corporate board heterogeneity and non-financial performance of listed oil and gas firms in Nigeria. The objective of the study was to investigate whether board gender diversity have significant effect on corporate social performance of listed oil and gas firms in Nigeria. The secondary source of data collection was adopted in the study where the purposive sampling technique was used to select a sample size of ten (10) listed oil and gas firms for the study. Least Square regression analysis was used in this study and the findings revealed that board gender diversity has no significant effect on corporate social performance of listed oil and gas firms in Nigeria. The study concluded that board gender diversity do not influence the corporate social performance of the firms. Finally, it was recommended that firms should make appointment of independent directors to dominate the appointment of inside executive directors so as to enable the firms to maximally reap the benefits of board independence. Also, independent directors are expected to carry out their duties in line with the specifications and directions of relevant Nigerian laws and codes governing their operations.

Keywords: Corporate Board Heterogeneity, Non-Financial Performance, Board Gender Diversity, Board Independence, Board Diligence, Board Ownership.

1. INTRODUCTION

In today's business practices, corporate governance is greatly appreciated as a means of bridging the gaps caused by business malfunctions and irregularities observed in the materiality of corporate issues. Stakeholders' constant demands for greater accountability from businesses are a part of the world of effective corporate governance and regulation. Adetula and Oyedeko (2023) asserted that sound corporate governance plays a crucial role in facilitating the successful operation and growth of businesses by directing managerial actions and corporate actions to reconsider management through the lens of internal and external accountability and transparency pressures.

Corporate governance refers to the system, procedure, and approach used to manage and oversee businesses. A company structure that maximizes shareholder wealth in a way that is morally, legally, and sustainably compliant while maintaining equity and openness for all parties involved is known as good corporate governance. The goal of corporate governance, according to Mostafa (2023), is to guarantee that the boards of directors carry out their duties effectively. Additionally, it safeguards the rights of shareholders, improves transparency and disclosure, makes it easier for the board to operate

effectively, and offers a strong framework for legal and regulatory enforcement. Through a combination of company law, stock exchange listing requirements, and self-regulatory codes, it tackles the agency problem. Corporate governance, then, is the process by which shareholders seek to ensure that their businesses are managed in accordance with their goals for accountability. Goal-setting, monitoring, management, control, and sanctioning processes are all included. More broadly, it refers to all actors (stakeholders) who help achieve the goals of stakeholders both inside and outside the company. Stakeholders in a strict sense include shareholders and management of a corporation as key actors.

Ensuring proper management of the company is the board's primary goal. The board bears the duty of supervising the management's efficient performance to safeguard and augment shareholder value while fulfilling the company's commitments to its workforce and other interested parties. The boards of directors are in charge of creating sustainable business plans, managing the company's assets, creating strategic policies, and making decisions that will maximize the achievement of the goals of the company (Nwagbara & Ugwuoji, 2018).

Stakeholders' attention has been drawn to the components of corporate governance by the numerous instances of institutional failure that have occurred recently all over the world. Corporate failure has frequently resulted from the effects of ineffective governance systems, which impact not only the shareholders but also the workers, suppliers, customers, and entire countries (Ceres, 2019). The unfortunate outcomes of the corporate scandals that swept through the United States, including the demise of Enron, WorldCom, the Dot-Com Bubble, Tyco, and Xerox, as well as the subsequent liquidation of HIH insurance in Australia in 2001 and Parmalat in Italy, which is regarded as the biggest bankruptcy in Europe with an estimated loss of \$20 billion, and Oceanic Bank in Nigeria in 2009, were highlighted by Wang and Coffey (2022).

In the context of board structure, the idea of board heterogeneity implies diversity and can be examined from a number of angles. Diversity or heterogeneity in board composition was noted by Babatunde and Folorunsho (2020) in terms of gender, age, nationality, education, and ethnicity. While some of these variations can be seen, others cannot.

The underutilization of women as directors and the appalling representation of minorities in the workforce are two reasons in favour of this requirement. The Alliance for Diversity Compiled Statistics of 2008, which reveal that white men made up 71.5% of the board members of Fortune 100 companies and that women and minorities occupied only 28.5% of the seats, allowed for the argument that women directors and minorities were terribly under-represented. You can think of heterogeneity and homogeneity as two sides of the same coin. Heterogeneity works well when solving novel and ill-defined problems, while homogeneity works best when solving routine problems. Diversity in abilities, education, age, culture, gender, ethnicity, and race are a few examples of how board heterogeneity can appear (Abdulazeez, Ndibe, & Mercy, 2016).

Although the boards serve as the primary internal governance mechanism's tool, their effectiveness varies according to their diversity (Bear, Rahman, & Post, 2020). For example, the audit committee of Enron had two independent foreign directors on its board. The efficacy of foreign directors' oversight of a company's operations and financial reporting is called into question by this aspect of diversity. Conversely, Gul and Leung (2018) supported board diversity by arguing that companies with diverse boards outperform those without, particularly when it comes to the representation of women directors. This study will however, concentrate on assessing corporate board heterogeneity and non-financial performance of listed oil and gas firms in Nigeria.

2. Literature Review and Hypotheses Development

2.1 Corporate Social Performance

Social performance is a multifaceted corporate issue that deals with management and business policies that align with societal values and goals. There is a growing interest in situating CSP in much broader contexts of innovation patterns

and trajectories, despite the fact that it was initially primarily applied in relation to concerns of shareholders, stakeholders, and state welfare. These new research directions are centered on community-led CSP policies that are involved in socially inventive work arrangements and solidarity connections between businesses, residents, and other actors both inside and outside of borders. Thus, in terms of the intentional actions of businesses towards these social actors as well as the unintentional externalities of corporate activity, corporate social performance (CSP) refers to the principles, practices, and outcomes of social, economic, and environmental relationships and dynamics with social actors and organizations (Aladejebi, 2021).

CSP has a broad range of intellectual roots that include economics, social science, history, philosophy, and legal studies. CSP is a dynamic, multidimensional concept made up of concern for shareholders, stakeholders, and community/state welfare; however, due to its complexity and value-laden lemmatization, there is still a lack of consensus regarding its fundamental motivations. According to Sanda and Garba (2015), there are two primary arguments that elucidate CSP conceptual ambivalence. Firstly, businesses exist to promote the welfare of the community at large. Secondly, their social responsibility is to enhance their profits.

2.3.1 Board Gender Diversity and Corporate Social Performance

There have been more studies conducted recently on the relationship between board gender diversity and firm performance from various countries, because gender-diverse boards have a unique set of knowledge, information, experiences, skills, and networks (Owolabi, Bamisaye & Efundade, 2023).

A board comprising female members is better equipped to balance the performance-based interests of shareholders with the interests of various stakeholders, such as workers, clients, suppliers, and communities. Vo and Phan (2018), who examined three distinct factors to acknowledge the significance of having women on a board, lend support to this claim. Generally speaking, female board members are more knowledgeable about the market than their male counterparts. Consequently, this comprehension will improve the board's decision-making. Second, having female board members will improve a company's reputation in the eyes of the community, which will boost the performance of the company. Third, the appointment of female board members will improve the comprehension of the business environment by other board members. Hence, as a result of women on board, a firm's performance is improved directly and indirectly.

In order to challenge management's way of thinking, a diverse board is necessary for effectiveness, which is why diversity on the board is demanded. Board diversity refers to the presence of individuals with varying acceptable character traits within the board membership. Diversity in the context of corporate governance refers to the makeup of the board and the amalgamation of the various traits, attributes, and proficiencies of the individual members with regard to the

board's decision-making and other procedures. Diversity on the board reflects the range of individual traits that contribute to the workforce's heterogeneity. It clarifies the situation in which the board is composed of people with a range of backgrounds and specializations, as well as people who are diverse in terms of age, gender, ethnicity, culture, and managerial experience (Simon, 2020).

Quang and Chien (2024) evaluated the effect of audit quality and governance capacity on the financial performance of 40 chosen companies that were listed between 2012 and 2021 on the Vietnam Stock Exchange. Regression techniques for panel data were employed, such as Pooled OLS and feasible generalized least squares. The findings of the research demonstrated that choosing women to serve as CEOs and having women on boards had a favourable impact on business profits. Large businesses or businesses that invest in fixed assets can make more money, according to the study. Thus laying the groundwork for businesses listed on the Vietnam Stock Exchange to increase operational effectiveness.

Adetula and Oyedeko (2023) investigated the impact of gender diversity on boards on corporate performance in Nigeria. The study was carried out in the context of deposit money banks, and information was obtained from listed DMBs' financial statements in Nigeria over an eleven-year period, from 2009 to 2019. Regression analysis was used in the study. The result revealed that the gender diversity of the board, has a negligible and negative impact on deposit money bank performance. The study recommended that shareholders should not support the notion that gender diversity on boards could lower agency costs and enhance performance, as suggested by agency theory, in Nigerian deposit money banks.

Mostafa (2023) examined board gender diversity and firm financial performance in Egypt. The study used regression analysis and discovered that organizational learning levels have a positive and significant impact on the dimensions of sensing opportunities and threats, risk management, and reconfiguration. The study concluded that board gender diversity had a positive and significant impact on firm performance.

Adeboyeun and Igbekoyi (2022) investigated the relationship between board diversity and financial performance in Nigerian listed manufacturing firms. The Ordinary Least Squares analysis technique was used, and it was discovered that board diversity has no significant effect on performance, with the exception of financial expertise diversity, which has a positive effect on financial performance, and that there is a long-term relationship with firm performance. It was concluded that diversity on the board in terms of gender, ethnicity, and educational background will not significantly improve or reduce firm performance, whereas diversity in terms of financial expertise will.

Issa, Abdulkadir, Sanni, and Ibrahim (2020) investigated how board diversity affects corporate social responsibility in developing countries. Board diversity was measured along four dimensions: board independence, board gender diversity, board professionalism, and board nationality. Using Panel

corrected standard error (PCSE) regression, the findings showed that board independence, gender diversity, and diversity all have a significant positive impact on corporate social responsibility. In contrast, there is no significant relationship between board professionalism and corporate social responsibility. It is therefore recommended that management of listed oil and gas firms maintain diverse balanced boards in terms of gender, independence, and expertise to enhance stakeholder protection and reduce managers' opportunistic tendencies behind CSR investment.

2.3.2 Board Independence and Corporate Social Performance

Independent directors have no personal or professional relationship with a company other than their position on the board. They are also commonly referred to as external directors. The presence of independent directors on a board can help to separate a company's management and control tasks, which is expected to offset insiders' opportunistic behaviour. Furthermore, independent directors have stronger and longer-term engagement with a broader range of stakeholders, which is likely to result in increased exposure to performance requirements (Oudat, 2020).

Independent non-executive directors are professional managers who do not participate in the firm's direct and day-to-day operations because they do not work full-time for the company. The presence of independent directors strengthens the Board's supervisory role because they are more responsive to societal concerns and ethically aware. Corporate board directors represent a variety of values, interests, and time horizons. Though there has been a lot of support for independent directors on corporate boards, there is still disagreement over whether these directors can effectively align managerial interests with shareholder values and contribute to improved corporate performance (Post, Rahman, & Rubow, 2021).

Sotonye, Lateef and Ene (2024) examined the effect of corporate governance on the performance of listed manufacturing companies in Nigeria with reference to board size and audit committee independence. The secondary source of data collection was adopted which includes the use of data collated from listed manufacturing companies through the Nigerian Exchange Group (NGX) Fact Book (2023). Data collated was analyzed using the descriptive statistics and correlation matrix with the aid of STATA version 15. The results revealed that board size and board independence has a significant positive impact on return on capital employed and net profit after-tax. The study therefore recommended that manufacturing companies listed on stock exchanges should ensure their audit committees consist of independent directors with appropriate experience and knowledge in risk management, financial reporting, and auditing.

Awotomilusi, Adewara, Dagunduro and Falana (2023) examined the effect of board characteristics on the performance of multinational firms in Nigeria. The study employed an ex-post facto research design in obtaining the data from the annual reports. The population of the study was

ten multinational companies quoted on the Nigerian Exchange Group as of 31st December 2022. The study employed a purposive sampling technique with a sample size of eight firms. Data collected were analyzed using descriptive statistics and multiple regression analysis. The comprehensive findings demonstrated that board size and board independence had a notably positive impact on the financial performance. Based on the study, it is recommended that multinational corporations in Nigeria focus on creating boards with a balanced size and composition, and prioritize board independence, expertise, and diversity to enhance overall performance.

Ngo, Le, Nguyen, and Luu (2023) investigated how market competition acted as a mediating factor in the relationship between board independence and the financial performance of companies listed on Vietnamese stock exchanges. The study makes use of secondary data that was gathered between 2016 and 2020 from the financial statements of businesses that are listed on the Vietnamese stock exchange. Pooled ordinary least squares (OLS), Fixed effects model (FEM), Random effects model (REM), and Generalized method of moments estimation (GMM) are the data analysis techniques used. The result revealed that board independence has a positive impact on financial performance.

Onatuyeh and Akpokerere (2023) analyzed whether female board representation moderates the relationship between board independence and firm performance. The robust regression technique's results, which were based on information taken from the audited annual reports of 18 insurance companies listed on the Nigerian Exchange Group (NGX) for the years 2012 to 2021, showed a significant negative relationship between board independence and firm performance and a significant positive relationship between female (board) gender diversity and firm performance. The study suggested restricting the number of female directors to executive roles, since the combination of feminism and independence's power lowers market performance among the Nigerian insurance companies under investigation.

2.3.3 Board Diligence and Corporate Social Performance

Board diligence refers to the quantity or regularity of board meetings. While some studies recommend against holding frequent board meetings, others think that doing so will improve the firm's performance. According to Ghosh (2017), there is a statistically significant correlation between board diligence and firm performance. Specifically, a 10% increase in diligence results in a 1% increase in the organization's performance. Ntim and Osei (2021) conducted a study on South African listed firms from 2012 to 2017 and discovered a positive correlation between the frequency of board meetings and firm performance. Regular meetings among the board members enhanced their capacity for management, supervision, and consultation, and this led to strong financial performance for the company. In a similar vein, Irshad and Ali (2015) found that firm performance as indicated by coefficients of Q and returns on asset (ROA) is positively impacted by independent directors, the frequency of board

meetings, and the size of the board. Similar findings were found by Akpan (2015) in his analysis of 79 Nigerian listed businesses between 2010 and 2012. Among other control functions, board diligence is a crucial component of the corporate governance framework that aids in directing and counseling management towards the pursuit of shareholder interest. The previously mentioned study also covered the regulations that Malaysian businesses had to comply with. The Malaysian code promotes regular board meetings, regular disclosure of meeting details, and regular attendance of members. By acting as a channel for communicating important information about the company's progress to every board member, this is supposed to improve board effectiveness and foster unity among the members (Akpan, 2015).

Oshim and Igwe (2024) investigated the financial performance and corporate governance of listed Nigerian consumer goods companies. Ex-post facto research methodology was used in the study, and secondary data were taken from 2013 to 2022 consumer goods companies' annual reports. The hypothesis testing method employed the correlation technique. Results indicated that there is no significant correlation between board meetings and the return on assets (ROA) of Nigerian consumer goods companies that are listed. The study suggested that consumer goods companies should give priority to board member expertise and diversity, instead of just growing the size of their boards.

Sinebe (2024) investigated the relationships between boardroom dynamics and firm performance among non-financial Nigerian firms using an ex-post facto research design and data from a sample of 58 firms over a ten-year period (2013-2022). The coefficients are estimated using a Random Effects GLS Regression model and utilizing STATA 14 software. The regression analysis revealed board meetings showed no significant effect on Tobin's Q. This study provides valuable insights for corporate governance practices in Nigerian firms, emphasizing the need for a redefined approach to boardroom dynamics, consider industry-specific guidelines to determine the optimal mix of independent and executive directors and encouraging it to develop meeting agendas that focus on strategic issues and long-term planning.

Obilikwu and Kassah (2023) ascertained the impact of board meeting frequency on the financial performance of Nigerian healthcare companies. The study used complete secondary data from 2013 to 2021 from all the healthcare companies that were quoted. At a 95% confidence level, multiple regression analysis was also used. The outcome showed a strong correlation between the frequency of board meetings and financial performance. The study found that having more board meetings leads to better financial performance and suggested that in addition to being held regularly (quarterly at the very least), board meetings ought to enhance the businesses' operations.

Sanyaolu, Adejumo, and Kadiri (2021) examined the impact of board diligence on the financial performance of deposit money banks (DMBs) listed on the Nigerian Stock Exchange.

Using a purposive sample approach and an ex post facto research design, data from the annual financial statements of the ten DBMs that were chosen were collected between 2012 and 2018. The Generalised Method of Moment (GMM) was used to test the hypothesis and analyse the data using inferential statistics. It was discovered that the financial performance of Nigerian listed DBMs is significantly impacted negatively by board diligence. It was suggested that issues that have an impact on performance should receive the highest priority at board meetings and that the quality of board meetings should be prioritized over their frequency.

2.3.4 Board Ownership and Corporate Social Performance

The people who contribute to the company's equity capital and assume risk are known as shareholders. During the annual general meeting, the directors report to the shareholders on their stewardship. Directors are chosen by shareholders to run the business on their behalf. Different categories of shareholders exist in a publicly traded company. A portion of them might be members of the management team, while others might be institutional or foreign investors or possess controlling shares. As a result, ownership structures of public companies can be divided into four categories: institutional, managerial, concentrated or block ownership, and foreign ownership (Qeshtaa, 2020).

The investors' ownership is not equal. Due to their disparate information, the structure could lead to a conflict of interest between the managers and the owners. The potential for the controlling shareholders to seek to deprive the non-controlling owners of certain benefits and expropriate them in order to further their own entrenchment effects is the source of yet another significant conflict between the block holders (controlling and non-controlling shareholders) (Michael & Ambrose, 2021).

Michael and Ambrose (2021) analyzed firm productivity and private ownership structure from the perspective of firm-level empirical evidence from Nigeria. They did this by applying an econometric model based on OLS technique and using data from the World Bank's Nigeria Enterprise Survey of 2014. Among other findings of the study, an increase in the percentage of private domestic firms—individuals, companies, or organizations—would, on average, have a significant positive impact on firm productivity in Nigeria by approximately 0.217276 units. Accordingly, the study comes to the conclusion that domestically owned private companies have a major positive impact on firm productivity in Nigeria.

Godwin, Shehu, and Niyi (2020) looked at the impact of ownership structure on the market value of quoted consumer goods manufacturing companies in Nigeria between 2010 and 2018. A sample of nineteen (19) consumer goods companies was taken using a judgemental sampling technique. Data were gathered from secondary sources by looking through the annual reports and financial statements of a sample of Nigerian consumer goods companies. The panel regression technique was used in the study as an analytical tool. The outcome demonstrated that managerial ownership has a

negative impact on market value. While ownership concentration, foreign ownership, and institutional ownership all have a positive impact on the firm value of Nigerian consumer goods companies.

Salameh (2020) investigated the impact of board ownership on Nigerian earnings per share. A sample of 23 Nigerian microfinance banks was used in the study. The study used secondary source of data collection while the multiple regression technique was used to analyze the data. The results showed an insignificant and negative correlation between earnings per share and board independence.

Puni and Anlesinya (2020) investigated the impact of managerial ownership on Pakistani earnings per share. A sample of 220 listed manufacturing, financial, and service organizations was used in the study. From 2001 to 2008, information was gathered from the annual report for a total of eight years. The study utilized the multiple regression technique and the result revealed insignificant but positive relationship between managerial ownership and earnings per share.

3.0 Analytical framework and model specification

The ex-post factor research design is used in this study due to the fact that the variables cannot be manipulated by the researcher. This method was adopted since social scientific research problems do not lend themselves to experimental and controlled inquiry of the ex-post factor kind. Also, this research design makes it impossible to select, control and manipulate the factors necessary to study cause-and-effect relationships directly. The population of this study consists of Nigerian listed companies on Nigerian Exchange Group (NGX) as at 31st December, 2023. The population comprises of one hundred and fifty six (156) firms listed on Nigerian Exchange Group. Since the entire listed firms cannot be used for the study, the study is limited to ten (10) listed oil and gas firms in Nigeria. The basic criteria of selecting these firms are the capitalization prowess and their specialization. In selecting the sample, purposive sample technique was used to derive the sample size. The **purposive sampling** was used to ensure that the sample represents a diversity of perspectives. The secondary source of data collection was used for this study where data was gathered from audited annual reports of selected listed deposit money banks in Nigeria. However, for the purpose of this study, eight (8) years annual reports of ten (10) listed oil and gas firms were adopted.

The study employed multiple regression technique of analysis using Least Squares regression estimation. This method was adopted because it enhances easy presentation and interpretation of data. The empirical model of the study is mathematically expressed as follows;

$$CSP_{it} = \alpha + \beta_1 BGD_{it} + \beta_2 BIN_{it} + \beta_3 BDG_{it} + \beta_4 BOW_{it} + \epsilon_{it}$$

Where;

$$CSP_{it} = \text{Corporate Social Performance}$$

$$BGD_{it} = \text{Board Gender Diversity}$$

BIN_{it} = Board Independence α = intercept
 BDG_{it} = Board Diligence $\beta_1 - \beta_3$ = Coefficients of parameters
 BOW_{it} = Board Ownership estimated
 ϵ_{it} = Error term

4. Result and Discussion

Table 1: Summary of Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Dev.	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
CSP	54	.00	.64	.3283	.12865	.141	.325	.243	.639
BGD	54	.00	37.50	15.7172	9.68581	.214	.325	-.504	.639
BIN	54	40.00	90.00	66.5152	13.30598	-.155	.325	-.756	.639
BDG	54	4.00	7.00	4.574	.8817	1.310	.325	.544	.639
BOW	54	.00	78.20	17.1494	22.73806	1.515	.325	1.289	.639
N	54								

Source: Output of data analysis by author using SPSS (2024)

From the above table, the dependent variable, corporate social performance (CSP) has a mean value of 0.3283, standard deviation of 0.12865, minimum value of 0.00 and maximum of 0.64. The independent variables; board gender diversity (BGD) has a mean value of 15.7172 and a standard deviation of 9.68581, a minimum and maximum value of 0.00 and

37.50 respectively. Board independence (BIN) has a mean value of 66.5152, standard deviation of 13.30598, minimum value of 40.00 and maximum value of 90.00. Board diligence (BDG) has a mean value of 4.574, standard deviation of 0.8817, minimum value of 4.00 and maximum of 7.00. Board ownership (BOW) has a mean value, standard deviation, minimum and maximum values of 17.1494, 22.73806, 0.00 and 78.20 respectively.

Table 2: Summary of Coefficient of Correlation

Coefficient Correlations

	BGD	BIN	BDG	BOW
BGD	1.000	-.454	.103	-.138
BIN	-.454	1.000	-.256	.227
BDG	.103	-.256	1.000	-.070
BOW	-.138	.227	-.070	1.000

Source: Output of data analysis by author using SPSS (2024)

Table 2 above shows the 2-tailed correlation analysis of the variables at 5% (0.05) level of significance. This shows that board gender diversity (BGD) is negatively correlated with

board independence (BIN) and board ownership (BOW) while positive correlated with board diligence (BDG). Likewise, board independence (BIN) is negatively correlated with board gender diversity (BGD) and board diligence (BDG) while positively correlated with board ownership.

Table 3: Summary of Regression result

Model Summary

Multiple R	.567
R Square	.322
Adjusted R Square	.266
Std. Error of the Estimate	.110

Coefficients

	Unstandardized Coefficients		Beta	t	Sig.
	B	Std. Error			
(Constant)	-.119	.102		-1.168	.248
BGD	.001	.002	.097	.736	.465
BIN	.004	.001	.423	3.064	.004
BDG	.034	.018	.231	1.897	.004
BOW	5.337E-5	.001	.009	.078	.938

Source: Output of data analysis by author using SPSS (2024)

The B column discusses the coefficient of the model. This indicates that a 11.9% decrease in corporate social performance is influenced by 0.1% increase in board gender diversity, 0.4% increase in board independence, 3.4% increase in board diligence and 0.05% increase in board ownership.

The cumulative adjusted R^2 (0.266) which is the multiple coefficient of determination gives the proportion or percentage of the total variation in the dependent variable as explained by the independent variables jointly. Hence, it signifies that 26.6% of the total variation in corporate social performance of sampled oil and gas firms is caused by the proxies of corporate board heterogeneity. This is quite fair so predictions from the regression equation are fairly reliable. It also means that 73.4% of the variation is still unexplained so adding other independent variables could improve the fit of the model. This indicated that the model is fit and the explanatory variable are properly selected, combined and used. The findings have theoretical, practical and regulatory significance.

Considering the significant effect of board gender diversity on corporate social performance of listed oil and gas firms in Nigeria, the regression result in table 4 indicate that board gender diversity has a positive and insignificance influence on corporate social performance of listed oil and gas firms in Nigeria. This was proved by the beta coefficient value of 0.097 and a t-value of 0.736 which has a p-value of 0.465 which is insignificance at 5% significance level. This leads to the acceptance of null hypothesis and rejection of alternative hypothesis. Hence, it is concluded that board gender diversity has no significant effect on corporate social performance of listed oil and gas firms in Nigeria.

Considering the significant effect of board independence on corporate social performance of listed oil and gas firms in Nigeria, the regression result in table 4 indicate that board independence has a positive and significance influence on corporate social performance of listed oil and gas firms in Nigeria. This was proved by the beta coefficient value of 0.423 and a t-value of 3.064 which has a p-value of 0.004 which is significance at 5% significance level. This leads to the acceptance of alternative hypothesis and rejection of null hypothesis. Hence, it is concluded that board independence has significant effect on corporate social performance of listed oil and gas firms in Nigeria.

Considering the significant effect of board diligence on corporate social performance of listed oil and gas firms in Nigeria, the regression result in table 4 indicate that board diligence has a positive and significance influence on corporate social performance of listed oil and gas firms in Nigeria. This was proved by the beta coefficient value of 0.231 and a t-value of 1.897 which has a p-value of 0.04 which is significance at 5% significance level. This leads to the acceptance of alternative hypothesis and rejection of null hypothesis. Hence, it is concluded that board diligence has significant effect on corporate social performance of listed oil and gas firms in Nigeria.

Considering the significant effect of board ownership on corporate social performance of listed oil and gas firms in Nigeria, the regression result in table 4 indicate that board ownership has a positive and insignificance influence on corporate social performance of listed oil and gas firms in Nigeria. This was proved by the beta coefficient value of 0.009 and a t-value of 0.078 which has a p-value of 0.938 which is insignificance at 5% significance level. This leads to the acceptance of null hypothesis and rejection of alternative hypothesis. Hence, it is concluded that board ownership has no significant effect on corporate social performance of listed oil and gas firms in Nigeria.

4.1 Discussion of Findings

The results indicate that almost all the variables are significantly normally distributed at 5% level of significance. The correlation matrix indicates the variables have mixed relationships. The results also indicate the absence of multicollinearity.

The findings from the first hypothesis revealed that board gender diversity has no significant effect on corporate social performance of listed oil and gas firms in Nigeria. This findings is in agreement with the findings of Quang and Chien (2024), Adetula and Oyedeko (2023) but in disagreement with the results of Mostafa (2023) and Adebayegun and Igbekeyi (2022).

The findings from the second hypothesis revealed that board independence has significant effect on corporate social performance of listed oil and gas firms in Nigeria. This findings correlates with the findings of Sotonye, Lateef and Ene (2024), Awotomilusi, Adewara, Dagunduro and Falana (2023) and Ngo, Le, Nguyen, and Luu (2023) while it negates the findings of Udoh, Ikpe, and Emenyi (2023) and Onatuyeh and Akpokerere (2023).

The findings from the third hypothesis revealed that board diligence has significant effect on corporate social performance of listed oil and gas firms in Nigeria. This result agrees with the findings of Oshim and Igwe (2024), Sinebe (2024) and Obilikwu and Kassah (2023) while it negates the findings of Sanyaolu, Adejumo and Kadiri (2021).

The findings from the fourth hypothesis revealed that board ownership has no significant effect on corporate social performance of listed oil and gas firms in Nigeria. This is further strengthened by the position of Michael and Ambrose (2021) and Godwin, Shehu, and Niyi (2020) while it disagrees with the results of Salameh (2020) and Puni and Anlesinya (2020).

5.0 Conclusion and Recommendation

5.1 Conclusion

Businesses function to maximize the wealth of their shareholders. This means that a lot of businesses' operations and activities could be bothersome and harm the social and environmental conditions of the host communities where they operate. Businesses should work to protect the social and environmental aspects of the communities in which they operate because doing so brings financial benefits. It makes sense that the corporations would want to reimburse the communities with a portion of these profits. Therefore, it is established that board complexity affects corporate social performance. The study comes to the conclusion that board ownership and gender diversity have no bearing on the company's corporate social performance. This shows that the proportion of women on the board of directors directly affects the company's capacity to fulfill its social obligations. On the other hand, corporate social performance is highly influenced by board independence and board diligence. Therefore, the board's independence and appropriate diligence will improve the execution of appropriate social activities in addition to fostering accountability and transparency.

5.2 Recommendations

The following recommendations are hereby made:

- i. Female participation in the boardroom should be encouraged. The Nigerian government should encourage and promote the idea of gender diversity by implementing policies that will set a minimum number of female directors firms should have. The women named to corporate boards can use their values, experiences and knowledge to add value to the organization. The inclusion of female directors in the boardroom will challenge the male counterpart to be more proactive for performance improvement.
- ii. Firms should make appointment of independent directors to dominate the appointment of inside executive directors so as to enable the firms to maximally reap the benefits of board independence. Also, independent directors are expected to carry out

their duties in line with the specifications and directions of relevant Nigerian laws and codes governing their operations.

- iii. Attendance of board at various meetings should be scrutinized to determine the level of commitment of the board. Strategic and informed decisions that will improve the performance of quoted firms are expected to be made in the board meetings. Board meetings should be scheduled in such a way that it will be convenient enough for all the board members to be in attendance.
- iv. Firms should endeavor to diversify their board in terms of ownership for improved groupthink and board effectiveness.

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