



Board Diversity and Corporate Social Responsibility Disclosure: An Empirical Analysis of Oil and Gas Companies Quoted at the Nigerian Stock Exchange

***¹ThankGod Chukuemeka Ndal (Ph.D) & Emmanuel Amaps Loveday Ibanichuka²**

**¹Department of Accounting
University of Port Harcourt, Nigeria
*E –mail: ndathanks2ng@yahoo.com**

**²Professor of Accounting, Department of Accounting
University of Port Harcourt, Nigeria**

ABSTRACT

This study investigated the relationship between board diversity and corporate social responsibility disclosure in the quoted oil and gas companies in Nigeria with its specific objectives such as to determine the relationship between board diversity dimensions and social activities disclosure. The population and the sample size for the study is the 12 quoted oil and gas companies in the Nigerian Stock Exchange (NSE). Secondary data were used in this study and data were analyzed using both descriptive, inferential statistics and Pearson Correlation Coefficient Statistical tool complementarily with the aid of Statistical Package for Social Sciences version 23.0 to test the null hypotheses. The findings of the study reveal that board gender diversity and board size has a significant relationship with social activities disclosure. Based on the findings, the study recommends that diversity such as gender, race, and professional backgrounds should be suitably represented as this will help in ensuring full disclosure of all CSR related information. Board size should not be less than 9 members given the magnitude of higher number of board size to greater disclosure of CSR activities of the sampled firms.

Keywords: Board Diversity, Gender Diversity, Board Size, Corporate Social Responsibility Disclosure

INTRODUCTION

Due to the harmful effects of corporations' actions on the environment and society around the world, public awareness of corporate social responsibility has exploded in recent years. While businesses contribute significantly to economic and technical growth, they are often subjected to criticism and are accused of being responsible for critical concerns such as environmental harm and social ills (Tan, Benni, & Liani, 2016). Hundreds of people have died in a series of high-profile social and environmental, health and safety business disasters in several developing countries, including Nigeria (Issa, Abdulkadir, Sanni and Ibrahim, 2020). Nigeria is one of the world's most polluting countries, ranking seventh in terms of gas flaring and tenth in terms of pollution (Airvisual, 2018; World Bank, 2019).

Many of these environmental problems are the consequence of firms' actions and operations aimed at satisfying the financial needs of its shareholders and investors. This is mostly ascribed to oil and gas corporations working in the Niger Delta region, and it is assumed that enterprises operating under their supervision are ecologically conscious (Issa, Abdulkadir, Sanni and Ibrahim, 2020). Despite the detrimental repercussions of the oil and gas industry, firms pay little attention to these issues. As a result, stakeholders press corporations to be more responsible for their actions, consider

environmental and sustainable development issues in their decisions, and participate actively in corporate social responsibility initiatives (Braam, Weerd, Hauck, & Huijbregts, 2016). As a result, firms have begun to engage in responsible business activities in order to meet the growing interest of stakeholders (Issa, Abdulkadir, Sanni and Ibrahim, 2020).

CSR (Corporate Social Responsibility) has become a popular topic in academic and business writing. Many organizations and institutions around the world emphasize the need of businesses considering the economic, social, and environmental impacts of their operations (World Business Council for Sustainable Development 2000; European Commission 2002; World Bank 2004). The process of disclosing information about company interactions with regard to the environment, employees, society, and consumer issues is known as corporate social responsibility disclosure (Gray, Javad, Power, & Sinclair, 2001). It is also a process of providing financial and non-financial information in the social and environment context (Hackston & Milne 1996).

Furthermore, Corporate Social Responsibility Disclosure (CSRSD) is an extension of the financial disclosure system, reflecting society's broader expectations of the business community's role in the economy. All information reported to stakeholders about a company's social and environmental effects is included in the CSRSD. As a result, it entails expanding the company's responsibilities beyond the traditional duty of giving a financial account to capital owners. This data could be qualitative, quantitative, or both, and it could be provided in annual reports, a specialized report, a media release, or another format to help the organization meet its goals (Adams & Shavit, 2011).

Nonetheless, there is a board diversity that plays a crucial role in assessing the company's performance in every successful management of corporate social responsibility. The diversity of the board of directors is able to provide a positive CSR level of efforts involving company engagement (Rao, 2016). Selection of board members can be done in order to achieve CSR goals that include specific criteria such as good qualifications, knowledge, and a wide range of value (Rao, 2016). Furthermore, having a diverse board of directors may demonstrate to the community how companies deal with social fairness (Bilimoria, 2000, Miller and Triana 2009); standard faithfulness and a favorable working environment (Miller and Triana 2009); organizational performance (Galbreath, 2011); and being responsible and concerned about the needs of women and minorities (Galbreath, 2011).

Board diversity can be defined as a wide range of backgrounds among board members, with boundless value in terms of age, knowledge, skill, and gender requirements among board members (Knippenberg et al. 2004). It can be divided into two categories: visible and less visible. Gender, nationality, ethnicity, and age are examples of visible diversity, while knowledge, education, experience, role, profession, and organizational participation are examples of less visible diversity (Kang et al. 2007). In order to analyze the CSR's disclosure, this study examines two elements of board diversity: board gender diversity and board size.

Nonetheless, anytime there is a lack of diversity and homogeneous boards of directors in management, this leads to general governance failures and weaknesses such as conflict of interest, cost management, unlawful insider trading, and false financial statements. Alternatively, board diversity was associated with higher representation of moral and ethical viewpoints in decision-making, less myopic decision-making, improved problem-solving, and improved corporate strategic planning and accountability (Handajani, Subroto, & Saraswati, 2014). Furthermore, increasing board diversity can improve the company's ethical corporate culture and contribute to a better grasp of the company's market position, creativity and innovation, as well as more effective problem-solving and CSR disclosure.

However, both practitioners and academic scholars are becoming increasingly interested in the topic of corporate social responsibility disclosure. However, previous research on the corporate social responsibility disclosure determinant focused on external monitoring variables, with little attention paid to board diversity, which could provide more insight into management decisions to participate in corporate social responsibility disclosure activities. Even so, several of these studies have evaluated the relationship between board diversity and corporate social responsibility in developed countries (Beji, Yousfi, Loukil and Omri, (2020); Kyun, & Jung, 2019; Susanto, (2019); Yaseen, Iskandrani, Ajina, & Hamad, 2019; Zhuang, Chang, & Lee, 2018; Oh, Sanan, 2018; Galbreath, 2017), Despite this, most of these studies have focused on the relationship between board diversity and corporate social responsibility in developed countries (Beji, Yousfi, Loukil, and Omri, 2020); Kyun, & Jung,

2019; Susanto, (2019); Yaseen, Iskandrani, Ajina, & Hamad, 2019; Zhuang, Chang, & Lee, 2018; Oh, Sanan, 2018; Galbreath, 2017), with only few studies exploring emerging countries like Nigerian (e.g. Issa, Abdulkadir, Sanni and Ibrahim, 2020; Awodiran & Jimba, 2018; Muktar, Mohammad, Jibril, and Sabo, (2016); Abubakar, 2016).

Furthermore, this study uses the amount of social activities disclosed as a CSR measurement, which has previously gotten little attention. Until far, the majority of CSR studies have employed CSR reporting as a metric. Furthermore, few studies have looked at Nigerian oil and gas companies, where concerns about corporate social responsibility such as air pollution and labour exploitation are common. Prior research on board diversity has mostly focused on the diversity of the board's index and diversity within the board's index (e.g. Hafsi & Turgut) (2013). This research therefore bridges this gap by utilizing two aspects of the diversity of boards and analyzing their effect on the CSR of oil and gas companies in Nigeria.

It is in the light of the above, that this study is aimed at investigating board diversity and corporate social responsibility disclosure: An empirical analysis of oil and gas companies quoted at the Nigerian Stock Exchange. Indicating the operational proxy of board diversity as board gender diversity and board size and the measures of corporate social responsibility disclosure as social activities disclosure gave rise to the following research hypothesis:

Ho₁ There is no significant relationship between board gender diversity and social activities disclosure.

Ho₂ There is no significant relationship between board size and social activities disclosure.

I. Theoretical Framework

The study is anchored on legitimacy theory propounded by Edward Freeman (1984). This is because legitimacy theory underpins the objective of the study.

Legitimacy Theory

The legitimacy theory was developed to modify corporate management attitudes about firm community concerns in order for their firms to survive the business cycle as a going concern entity for a long time (Gray, Kouhy, & Lavers, 1995). According to legitimacy theory, a "social compact" exists between the corporation and the society in which the enterprise operates. Thus, a proponent of legitimacy theory believes that a company's management must ensure that its operations, decisions, and actions are always within society's bounds and norms, and avoid taking any decision or action that is deemed undesirable, harmful, disastrous, or inappropriate to the health and safety of consumers, employees, community residents, and the operating environment (Ugwuiwa and Jimoh, 2012). This theory claimed that businesses should follow the law of the land, protect their physical environment, and avoid dumping superfluous garbage. When it comes to examining business behavior in respect to a community-constructed system of generally acceptable values, norms, and beliefs, legitimacy theory has become the most frequently and usefully mentioned theory.

II. Conceptual Review

Board Diversity

The concept of board diversity includes gender diversity (Milliken & Martins, 1996). The concept of board diversity indicates that boards should reflect society's structure, with gender, race, and professional backgrounds suitably represented. Boards are concerned about having the correct mix of people on them to provide a varied range of opinions (Milliken & Martins, 1996; Biggins, 1999). Shareholders (Carver, 2002), stakeholders (Keasey, Thompson, & Wright, 1997), corporate philanthropy (Coffey & Wong, 1998), and commercial considerations all favor board diversity (Mattis, 2000; Daily & Dalton, 2003). Diversity, on the other hand, should not only assure equitable representation but also serve as a symbol of widening the merit principle (Burton, 1991). Diversity, according to Robinson and Dechant (1997), develops a better grasp of the market world, boosts innovation, leads to more effective problem-solving and leadership, and strengthens global linkages. Different theoretical viewpoints also assist gender diversity on the boards. For example, agency theory is primarily concerned with board of director independence and a mix of executive and non-executive directors. A balanced board will have representation from a variety of groups, ensuring that no single person or small number of individuals can dominate the board's decision-making (Hampel, 1998).

Gender diversity is the most frequently studied type of diversity in the literature (Krishnan & Parsons 2008; Srinidhi et al., 2011), partly because it is the most visible form of diversity in the boardroom. A few recent studies have attempted to formulate a comprehensive picture of their simultaneous influence on various organizational outcomes by combining demographic characteristics relating to diversity within a board of directors into a composite measure, as well as demographic characteristics relating to diversity between boards (Ben-Amar et al., 2013; Hafsi & Turgut 2013). Recently, Hafsi & Turgut (2013) identified two elements of boardroom diversity. One dimension addresses board diversity based on demographic parameters of board members; they evaluate numerous aspects that contribute to board diversity and offer a composite index called the diversity-in-boards index. The other dimension takes into account the differences between different boards. They assess board compositional aspects, compare them across boards of different companies, and present a composite measure termed the diversity-of-boards index.

A diversity-of-boards index (dissimilarities among company boards, a dimension related to board structure) and a diversity-in-boards index (dissimilarities among directors inside a board, a dimension related to board demographics) are used to measure these two dimensions of board diversity (Hafsi & Turgut 2013). Ben-Amar et al., (2013) create two separate board diversity indices for the demographic and structural aspects; nevertheless, these two indices are measured using the same method, therefore their meanings are comparable. To determine the two dimensions of board diversity in organizations, this thesis used Hafsi and Turgut's (2013) approach. Cognitive conflict among board members can help a heterogeneous board because it should result in solutions that have been thoroughly considered. Furthermore, because disparities in gender, ethnicity, and/or cultural backgrounds among directors might generate concerns that would not emerge among directors with similar backgrounds or experience, heterogeneity can lead to enhanced board independence (Robinson & Dechant 1997). (Arfken et al., 2004). Such diversity in board members' characteristics can boost creativity and innovation, giving the company a competitive advantage (Carter et al., 2003; Erhardt et al., 2003). Diverse teams have the potential to be more creative than homogeneous teams, allowing for more alternative decisions to be considered. Diversity can also lead to the development of new criteria for evaluating different options (DiStefano & Maznevski 2000). Furthermore, Van der Walt and Ingley (2003) argued that board diversity is a necessary ethical obligation of the board of directors, and that a board of directors must be responsible for the interests of the owners while also representing their diversity, resulting in a more diverse board of directors. Board diversity also necessitates a broader sense of responsibility for the society in which a company operates (Van der Walt & Ingley 2003).

Board Size

The total number of members with voting rights on a company's board of directors is referred to as board size (Pugliese and Wenstop, 2007). Smaller boards have been advocated in much of the literature on board size (Wu, 2003). Smaller and larger boards are used to determine board size. These arguments are founded on the idea that smaller groups are more cohesive and productive, and that they can better oversee the firm than bigger groupings (Pablo, Valentin, Felix, 2005). Larger groups, on the other hand, face issues such as social loafing and higher coordination costs, making them ineffective monitors (Rashid, 2011). According to Lipton and Lorsch (1992), boards with eight or nine members are the most effective. When the board reaches this optimal size, they claim, it becomes impossible for all board members to present their thoughts and opinions in the time allotted at board sessions. Jensen (1993) agrees with this viewpoint, claiming that boards with more than seven or eight members are less effective and easier to manipulate for the CEO than smaller boards.

Yermack (1996) backs up these claims with empirical evidence, demonstrating a significant negative association between Tobin's Q and board size for large US public companies. Larger boards, on the other hand, have some advantages (Wu, 2003). From the standpoint of the agency, it may be claimed that a larger board is more likely to be watchful when it comes to agency issues because a larger number of people will be scrutinizing management actions (Nicholson & Kiel, 2003). In an OLS model, Mak and Li (2001) found a strong and positive association between Tobin's Q and board size for Singapore enterprises. However, agency theorists acknowledge that boards have a maximum size (Huse, 2007). According to Jensen (1993), the maximum number of directors should be around eight, as more would disrupt group dynamics and impair board effectiveness. Alternatively, it may be argued that the number of independent non-executive members on the board is more important than the board's size (Dalton, et al., 1999). From the perspective of resource dependence theory, it may be

argued that a larger board provides more options for external linkages and hence access to resources (Nicholson & Kiel, 2003).

Corporate Social Responsibility Disclosure

Social activities disclosures are used to measure corporate social responsibility disclosure. The concept of corporate social responsibility is a simple topic of debate among firms and stakeholders that has continued to capture the attention of corporate governance. This occurred as a result of community members' demands that corporations address the neighborhoods environmental and social concerns as part of their business plan, because the company's interests extend beyond producing a profit for shareholders to both stakeholders and shareholders. Companies are required to be more productive in their thinking, particularly in terms of ways and processes to alleviate and solve the requirements of various stakeholder groups. Employees, government, community members, consumers, and business owners who have a stake in a company are all stakeholders. Furthermore, in order to establish image and reputation in a competitive business climate, organizations must meet the interests of various stakeholder groups.

Furthermore, businesses are expected to be transparent and accountable to their stakeholders. As a result, owners evaluate companies based on their financial success, and governments evaluate companies based on their compliance with relevant regulations (Thi and Pham, 2018), while communities evaluate the company's commitment to social and environmental activities (Phiri, Mantzari, and Gleadle, 2018). In general, CSR is a requirement for businesses to participate in programs that promote societal growth, the fulfillment of stakeholder interests, and the improvement of societal conditions (Chelliah, Jaganathan, and Chelliah, 2017; Radka, 2019). The greatest way for a corporation to report social and environmental initiatives for community members in bookkeeping is through disclosure in an annual account statement (Alnabsha et al., 2018; Umoren, Isiauwe, and Morenike, 2016). As a result, organizations' management is questioned about including information on CSRD actions in their annual reports. The goal is to meet the information needs of the host communities of the companies (Khasharmeh and Desoky, 2013).

Furthermore, including environmental and social activities information in annual reports of corporations has improved the validity and trustworthiness of the financial reporting system while also increasing the company's image and reputation. Furthermore, the accounting profession and accountants believe that corporate social responsibility and the disclosure that goes along with it will never be separated. Typically, communities expect firms to perform better or worse in terms of providing, social, and environmental activities, and this is done by measuring the social programs, activities, and projects that companies reveal in an annual report. Furthermore, corporate governance characteristics are all about how a firm looks, makes decisions, and has capabilities that set it apart from others. There are numerous corporate governance aspects that influence company decisions on information disclosure, such as CSRD in an annual report.

Corporate social responsibility, according to Haslinda, Alia, and Faizah (2016), is the obligation of businesses to include the community's economic, legal, ethical, and charitable demands into their business strategy at any given time. This demonstrates that businesses should provide some services that communities require. Furthermore, if businesses complete their CSR actions, they may only have a chance of surviving for a long time. Similarly, communities should support and assist businesses in achieving their economic objectives, such as by ensuring product safety and providing enough health care for employees. Companies are expected to fulfill their ethical responsibilities by aligning their commercial actions with society ideals, according to supplementary communities. Finally, voluntary responsibilities are those social acts that communities require above and beyond their economic, legal, and ethical obligations.

III. Empirical Review

Matteo, Jamel, Salim, Wafa and Yamina (2021) studied *Does a Board Characteristic Moderate the Relationship between CSR Practices and Financial Performance? Evidence from European ESG Firms*. This study aims to examine the potential effect that corporate social responsibility practices (CSR) have on financial performance in ESG firms, using the moderating role of board characteristics. The study found out that board characteristics partially moderate the relationship

between CSR practices and financial performance in European ESG firms. In addition, the study indicates that CSR practices affect the firm's financial performance positively.

Omaliye, Nweze and Nwadiolor (2020) studied the effect of social and environmental disclosures on performance of non-financial firms in Nigeria. In order to determine the relationship between social and environmental disclosures and firms performance, some key proxy variables were used in the study, namely corporate social responsibility disclosure and environmental disclosure; firms' performance is however represented by NAPS. The findings generally indicate that corporate social and environmental disclosures have significantly influenced firms' performance at 5% significant level. Based on this, the study concludes that social and environmental disclosures have positively improved firms performance over the years.

Beji, Yousfi, Loukil and Omri (2020) studied Board Diversity and Corporate Social Responsibility: Empirical Evidence from France. This study analyzes how the board's characteristics could be associated with globally corporate social responsibility CSR and specific areas of CSR. It is drawn on all listed firms, in 2016, on the SBF120 between 2003 and 2016. The results provide strong evidence that diversity in boards and diversity of boards globally are positively associated with corporate social performance. However, they influence differently specific dimensions of CSR performance.

Emmanuel, Elvis and Abiola (2019) studied environmental accounting disclosure and performance of listed Companies in Nigeria from 2007 –2016. Data were analyzed through the use of multiple regression. The result of the study shows that non-financial indicators of environmental disclosure have a positive significant effect on performance, while performance indicator of environmental accounting disclosure has no effect on performance of firms.

Polycarp (2019) conducted a research on environmental accounting and financial performance of oil and gas companies in Nigeria from 2016-2017. Data was collected from annual reports, performance was measured using return on equity, earnings per share and net profit margin. Multiple regression was used to analyze the data, the study found out that environmental disclosure has no relationship with financial performance.

Guerrero-Villegas, Pérez-Calero, Hurtado-González and Giráldez-Puig (2018) studied Board Attributes and Corporate Social Responsibility Disclosure: A Meta-Analysis. Many studies have examined the relationships between board attributes (board independence, CEO duality, board size, and women on boards) and corporate social responsibility disclosure (CSR) as a means to improve a firm's reputation. These relationships were more significant in countries with low levels of commitment to sustainable goals. Thus, the study revealed differences in the relationship between board attributes and CSR, and that these differences were conditioned by the institutional contexts in which firms operate.

Nwaiwu and Oluka (2018) empirically examined the effect of environmental disclosure on financial performance of firms in Nigeria for a period of five years from 2011-2015. Data were analyzed using multiple regression. The result indicated environmental disclosure has a significant positive effect on financial performance of firms.

IV. METHODOLOGY

This study is designed to investigate the relationship between board diversity and corporate responsibility disclosure: An analysis of oil and gas companies quoted at the Nigerian Stock Exchange. The study adopt ex – post facto and cross sectional research design because it relies on historical or past data and a cross section of oil and gas firms in Nigeria. The population of the study comprises of 12 quoted oil and gas firms on Nigerian Stock Exchange as at 31stDecember, 2019. The selection of Oil and gas sector was necessitated because they operate in socially and environmentally sensitive sectors. There has been increasing hostility against oil and gas firms in Nigeria as a consequence of the negative social and environmental results of their operations in host communities. Secondary data were used to carry out this study. Secondary data was collected from the company Annual Reports. Pearson Product Moment Correlation Coefficient analytical technique was used and facilitated by Statistical Package for Social Sciences (SPSS) version 23.0.

V. RESULTS AND ANALYSIS

The data collected were presented and discussed in this section. The descriptive statistics, correlation matrix and inferential statistics are all presented in this section. The hypothesis formulated for the

study was also tested to ascertain the relationship between board diversity and corporate social responsibility disclosure.

Table 1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness
Board Gender Diversity	120	2.00	13.00	8.4583	2.54669	2.997
Valid N (listwise)	120					

Source: SPSS Output, 2021

Table 1 showed that board gender diversity had the mean of 8.4583 and the standard deviation of 2.54669. The minimum and maximum values of 2.00 and 13.00 respectively. The skewness is at 2.997 which shows the normality of the variables and is within the threshold of +/- 1.96. It signifies the absence of outliers in the data set.

Table 2 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness
Board Size	120	2.00	13.00	8.4917	2.51047	5.158
Valid N (listwise)	120					

Source: SPSS Output, 2021

Table 2 showed that board size had the mean of 8.4917 and the standard deviation of 2.51047. The minimum and maximum values of 2.00 and 13.00 respectively. The skewness is at 5.158 which shows the normality of the variable and is within the threshold of +/- 1.96. It signifies the absence of outliers in the data set.

Table 3 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness
Social Activities Disclosure	120	8608.00	435000000.00	45320672.35	64084057.20	2.660
Valid N (listwise)	120					

Source: SPSS Output, 2021

Table 3 showed that social activities disclosure had the mean of 45320672.35 and the standard deviation of 64084057.20. The minimum and maximum values of 8608.00 and 435000000.00 respectively. The skewness is at 2.660 which shows the normality of the variable and is within the threshold of +/- 1.96. It signifies the absence of outliers in the data set.

Test of Hypotheses

H₀ There is no significant relationship between board gender diversity and social activities disclosure in oil and gas companies in Nigeria.

Test of Hypothesis 1

Table 4: Correlation Analysis on the Extent and Direction of the Relationship between Board Gender Diversity and Social Activities Disclosure

		Board Gender Diversity	Social Activities Disclosure
Board Gender Diversity	Pearson Correlation	1	.455**
	Sig. (2-tailed)		.000
	N	120	120
Social Activities Disclosure	Pearson Correlation	.455**	1
	Sig. (2-tailed)	.000	
	N	120	120

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4 shows the correlation analysis on the extent and direction of the relationship between board diversity and social activities disclosure. It showed the correlation coefficient of $r = 0.455^{**}$ with the significant/probability value = 0.00 less than 0.05 level of significant. The value is moderate indicating a moderate relationship between board gender diversity and social activities disclosure. Based on the above result, the study rejects the null hypothesis of no significant relationship between board gender diversity and social activities disclosure and accept the alternate hypothesis of a significant relationship between board diversity and social activities disclosure.

H₀₂ There is no significant relationship between board size and social activities disclosure in oil and gas companies in Nigeria.

Test of Hypothesis 11

Table 5: Correlation Analysis on the Extent and Direction of the Relationship between Board Size and Social Activities Disclosure

		Board Size	Social Activities Disclosure
Board Size	Pearson Correlation	1	.452 ^{**}
	Sig. (2-tailed)		.000
	N	120	120
Social Activities Disclosure	Pearson Correlation	.452 ^{**}	1
	Sig. (2-tailed)	.000	
	N	120	120

^{**}. Correlation is significant at the 0.01 level (2-tailed).

Table 5 shows the correlation analysis on the extent and direction of the relationship between board size and social activities disclosure. It showed the correlation coefficient of $r = 0.452^{**}$ with the significant/probability value = 0.00 less than 0.05 level of significant. The value is moderate indicating a moderate relationship between board size and social activities disclosure. Based on the above result, the study rejects the null hypothesis of no significant relationship between board size and social activities disclosure and accept the alternate hypothesis of a significant relationship between board size and social activities disclosure.

DISCUSSION OF FINDINGS

The test of hypotheses was carried out using secondary data collected from Nigerian Stock Exchange (NSE) and the extent and direction of the relationship between board diversity dimensions (board gender diversity and board size) and the measure of corporate social responsibility disclosure (social activities disclosure) were determined. Thus it is important to discuss the findings and relate them to the conceptual review.

On the test of hypothesis one (H₀₁), it was found that there is a significant moderate relationship between board gender diversity and social activities disclosure. The analysis in table 4 showed the correlation coefficient of $r = 0.455^{**}$ significant at $pv = 0.000 < 0.05$. Hence the conclusion that there is a significant relationship between boards gender diversity and social activities disclosure. The implication of this finding is that an increase in board gender diversity is associated with an increase in social activities disclosure. This position is in line with the study of Beji, Yousfi, Loukil and Omri (2020), Yahaya and Apochi (2021), Matteo, Jamel, Salim, Wafa and Yamina (2021), Omalike, Nweze and Nwadiolor (2020), Susanto (2019) who studied at different time board characteristics and corporate social responsibility disclosure and found that, board characteristics has a significant relationship with corporate social responsibility disclosure.

On the test of hypothesis two (H₀₂), it was found that there is a significant moderate relationship between board size and social activities disclosure. The analysis in table 5 showed the correlation coefficient of $r = 0.452^{**}$ significant at $pv = 0.000 < 0.05$. Hence the conclusion that there is a significant relationship between board size and social activities disclosure. The implication of this finding is that an increase in board size is associated with an increase in social activities disclosure.

This position is in line with the study of Kengatharan and Sivakaran (2019), Guerrero-Villegas, Pérez-Calero, Hurtado-González and Giráldez- Puig (2018), Muktar, Mohammad, Jibril, and Sabo (2016), Kurawa and Abdulrahman (2014) and Haji (2013) who studied at different times board characteristics proxied by board size and corporate social responsibility disclosure and found that, board size has a significant relationship with corporate social responsibility disclosure.

CONCLUSION

The study empirically investigated board diversity and corporate social responsibility disclosure in quoted oil and gas companies in Nigeria using cross – sectional data of 12 quoted indigenous oil and gas companies for a period of 10 years starting from 2010 to 2019. The dependent variable was measured by social activities disclosure, while the independent variable was proxied by board gender diversity and board size. The theoretical framework of the study were legitimacy theory and group diversity theory, the study was anchored on legitimacy theory because of its underpinning of the objective of the study. Two hypothesis were postulated in this study. Moreover, based on the test of the hypotheses, the following conclusions are drawn:

That there is a significant relationship between board diversity and social activities disclosure in the quoted indigenous oil and gas companies in Nigeria. In the light of the above, the study recommends that diversity such as gender, race, and professional backgrounds should be suitably represented as this will help in ensuring full disclosure of all CSR related information. Board size should not be less than 9 members given the magnitude of higher number of board size to greater disclosure of CSR activities of the sampled firms.

REFERENCES

- Airvisual. (2018). *The 2018 world air quality report*. Retrieved from <https://www.airvisual.com/world-most-pollutedcities/world-air-quality-report-2018-en.pdf>
- Alnabsha, A., Abdou, H. A., Ntim, C. G., & Elamer, A. A. (2018). Corporate boards, ownership structures and corporate disclosures: Evidence from a developing country. *Journal of Applied Accounting Research*, 19(1), 20–41.
- Bear, S., Rahman, N., & Post, C. (2010). The impact of board diversity and gender composition on corporate social responsibility and firm reputation. *Journal of Business Ethics*, 97(2), 207-221.
- Beji, R., Yousfi, O., Loukil N. & Omri A. (2020). Board diversity and corporate social responsibility: empirical evidence from France. *Journal of Business Ethics*, 1-25.
- Ben-Amar, W., Francoeur, C., Hafsi, T., & Labelle, R. (2013). What makes better boards? A closer look at diversity and ownership. *British Journal of Management*, 24 (1), 85-101
- Bilimoria, D. (2000). *Building the business case for women corporate directors*. In *women on corporate boards of directors* (25-40). Springer, Dordrecht
- Braam, G., Weerd, L. Uit De, Hauck, M., & Huijbregts, M. (2016). Determinants of corporate environmental reporting: The importance of environmental performance and assurance Geert. *Journal of Cleaner Production*.
- Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. *Financial Review*, 38(1), 33-53.
- Carver, J. (2002). *On board leadership*. New York: Jossey-Bass, John Wiley, Inc.
- Chelliah, T. D., Jaganathan, M., & Chelliah, M. K. (2017). Adoption of corporate social responsibility: Empirical Evidence from Malaysian SMEs. *Jurnal Komunikasi, Malaysian Journal of Communication*, 33(4), 174–189.
- Coffey, B. S., & Wong, J. (1998). Board Diversity and Managerial Control as Predictors of Corporate Social Performance. *Journal of Business Ethics*, 17(14), 1595-1603
- Dalton, D., Daily, C., Johnson, J., & Ellstrand, A. (1999). Number of directors and financial performance: A meta-analysis. *Academy of Management Journal*, 42, 674-686.
- Dobbin, F., & Jung, J. (2011) Corporate Board gender diversity and stock performance: The competence gap or institutional investor bias? *Harvard University Department of sociology*, 40 (2), 137-140.
- Emmanuel, O. G., Elvis, E. & Abiola T. (2019). Environmental accounting disclosure and firm value of industrial goods companies in Nigeria. *Journal of Economics and Finance* 10 (1), 7-21

- Erhardt, N. L., Werbel, J. D. & Shrader, C. B. (2003). Board of director diversity and firm financial performance. *Corporate Governance: An International Review*, 11(2), 102-111
- Galbreath, J. (2011). Are there gender-related influences on corporate sustainability? A study of women on boards of directors. *Journal of management & organization*, 17(1), 17-38.
- Gray, R., Kouhy, R., & Laver, S. (1995b). Corporate social and environmental reporting: A review of the literature and a longitudinal study of UK disclosure, *Accounting, Auditing & Accountability Journal*, 8(2), 47-77.
- Guerrero-Villegas, J., Pérez-Calero, L., Hurtado-González J.M, & Giráldez-Puig P. (2018). Sustainability, 10 (4808), 1 – 22
- Hackston, D., & Milne, M. J. (1996). Some determinants of social and environmental disclosures in New Zealand companies. *Accounting, Auditing & Accountability Journal*, 9(1), 77–108
- Hafsi, T. & Turgut, G. (2013). Boardroom diversity and its effect on social performance: Conceptualization and empirical evidence. *Journal of Business Ethics*, 112 (3), 463-479
- Hampel. R. (1998). *Committee on corporate governance. Final report*. London: Gee Publishing Ltd
- Handajani, L., Subroto, B., Sutrisno, T., & Saraswati, E. (2014). Does board diversity matter on corporate social disclosure? An Indonesian evidence. *Journal of Economics and Sustainable Development*, 5(9), 8-16.
- Haslinda, Y., Alia, J., & Faizah, D. (2016). Corporate governance and corporate social responsibility disclosures: An emphasis on the CSR Key dimensions. *Journal of Accounting and Auditing: Research & Practice*, 3(1), 1–14.
- Huse, M. (2007). *Boards, governance and value creation: The human side of corporate governance*. Cambridge University Press.
- Issa S.O., Abdulkadir K.I., Sanni O.N. & Ibrahim (2020). Impact of board diversity on corporate social responsibility of listed oil and gas firms in Nigeria. *International Journal of Accounting Research*, 5(3), 107 – 115
- Jensen, M. (1993). The modern industrial revolution, exit and the failure of internal control systems. *Journal of Finance*, 8, 831–880
- Kang, H., Cheng, M., & Gray, S. J. (2007). Corporate governance and board composition: Diversity and independence of Australian Boards. *Corporate Governance. An International Review*, 15(2), 194–207.
- Keasey, K., Thompson, S., & Wright, M. (eds). (1997). *Corporate governance: Economic, management, and financial issues*. Oxford: Oxford University Press
- Khasharmeh, H.A., & Desoky, A.M. (2013). Online corporate social responsibility disclosures: The case of the gulf cooperation council (GCC) Countries. *Global Review of Accounting and Finance*, 4(2), 39–64.
- Knippenberg, V. D., Dreu, D. C. K., & Homan, A. C. (2004). Work group diversity and group performance: an integrative model and research agenda. *Journal of applied psychology*, 89(6), 1008.
- Krishnan, G. V. & Parsons, L. M. (2008). Getting to the bottom line: An exploration of gender and earnings quality. *Journal of Business Ethics*, 78(1/2), 65-76.
- Lipton, M. & Lorsch, J. (1992). A modest proposal for improved corporate governance, *Business Lawyer*, 1, 59–77.
- Mak, Y. T., & Li, Y. (2001). Determinants of corporate ownership and board structure: evidence from Singapore, *Journal of Corporate Finance*, 71, 235
- Matteo, R., Jamel, C., Salim, C., Wafa, J. & Yamina C. (2021). Does a Board Characteristic Moderate the Relationship between CSR Practices and Financial Performance? Evidence from European ESG Firms. *Journal of Risk and Financial Management* 14(354), 1 – 15
- Mattis, M. C. (2000). Women corporate directors in the United States. In R. J. Burke and M. C. Mattis, (eds.). *Women on corporate boards of directors: international challenges and opportunities*, 43–56. Dordrecht: Kluwer Academic
- Miller, T., & Triana, D. C. M. (2009). Demographic diversity in the boardroom: Mediators of the board diversity–firm performance relationship. *Journal of Management studies*, 46(5), 755-786.

- Milliken, F. J. & Martins, L. L. (1996). Searching for common threads: Understanding the multiple effects of diversity in organizational groups. *The Academy of Management Review*, 21(2), 402-433.
- Nicholson, G. J., & Kiel, G. C. (2003). Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. *Corporate Governance: An International Review*, 11(3), 189–205
- Nwaiwu, N.J. & Oluka, N.O. (2018). Environmental cost disclosure and financial performance of Oil and Gas in Nigeria. *International Journal of Advanced Academic Research*, 4(2), 1- 23
- Omali E.L, Nweke A.U & Nwadior E.O (2020). Effect of social and environmental disclosures on performance of non-financial firms in Nigeria. *Journal of Accounting and Financial Management*, 6(1), 40 – 58
- Pablo, A., Valentin, A., & Felix, L. (2005). Corporate boards in OECD countries: Size, composition, functioning and effectiveness. *Journal of Corporate Governance*, 13(2), 197–210 performance: an integrative model and research agenda. *Journal of applied*
- Phiri, O., Mantzari, E., & Gleadle, P. (2018). Stakeholder interactions and corporate social responsibility (CSR) practices: Evidence from the Zambian copper mining sector. *Accounting, Auditing and Accountability Journal*, 31(8), 2110–2129.
- Phiri, O., Mantzari, E., & Gleadle, P. (2018). Stakeholder interactions and corporate social responsibility (CSR) practices: Evidence from the Zambian copper mining sector. *Accounting, Auditing and Accountability Journal*, 31(8), 2110–2129
- Polycarp, S.U. (2019). Environmental accounting and financial performance of oil and gas companies in Nigeria. *Research Journal of Finance and Accounting*, 10(10), 192-202.
- Pugliese, A., Wenstop, P.Z. (2007), Board member contribution to strategic decision making in small firms, *Journal of Management and Governance*, 11(4), 383-404.
- Rao, K. (2016). *Boards, Gender and Corporate Social Responsibility (CSR)* (Doctoral dissertation, Flinders University, Flinders Business School.)
- Rashid, A. (2011). *Board composition board leadership structure and firm performance: Evidence from Kenya. A paper for inclusion in the accounting and finance association Australia and New Zealand Annual Conference Adelaide, July 5-7th.*
- Robinson, G. & Dechant, K. (1997). Building a business case for diversity. *The Academy of Management Executive*, 11(3), 21.
- Srindhi, B., Gul, F.A., & Tsui, J. (2011). Female directors and earnings quality. *Contemporary Accounting Research*, 28(5), 1610-1644
- Thi, H., & Pham, S. (2018). Board and corporate social responsibility disclosure of multinational corporations. *Journal of Multinational Business Review*, 5(1), 1–23
- Umoren, A., Isiaavwe, E., & Morenike, T. (2016). *Corporate social responsibility and firm performance: A study of quoted firms in Nigeria: In paper presented at ICAN 2nd International Conference of Accounting and Finance, at Ikeja, Lagos on the 18th to 20th May*
- Umugbe, U. & Jimoh, J. (2012). Corporate environmental disclosure in the Nigerian manufacturing industry: A case study of selected firms. *An International Multidisciplinary Journal, of African Research Review*, 6(3), 71-83
- Van der Walt, N. T., & Ingley, C. B. (2003). Evaluating board Effectiveness: The Changing Context of Strategic Governance. *Journal of Change Management*, 1(4), 313-331.
- World Bank. (2019). Global Gas Flaring Reduction Partnership.
- Wu, Y. (2003). Honey, Calpers shrunk the board! *Journal of Corporate Finance*, 8, 313– 336.
- Yermack, D. (1996), higher market valuation of companies with a small board of directors. *Journal Financial Economics* 40(2), 185-211.