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# Corporate governance characteristics and sustainability reporting quality in Nigeria

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## ABSTRACT

Businesses now implement more ethically sound procedures as a result of growing concerns about resource depletion, environmental harm, rising global temperatures, climatic changes, and human rights violations. As a result, this study empirically examined the impact of corporate governance characteristics on sustainability reporting quality for selected listed firms in the Nigerian manufacturing sector. The study selected a sample of 20 companies from the Nigerian manufacturing sector using Burley's formula, a method for determining sample size. We conducted a content analysis on the annual reports and corporate websites of these selected companies to evaluate the quality of their Sustainability reporting over a seven-year span (2015-2021). Additionally, we employed the ordered least square regression technique to assess the hypotheses. The study's results indicate a significant positive association between the size of the board and the quality of sustainability reporting. Similarly, there's a significant positive association between board gender diversity and the quality of sustainability reporting. Nonetheless, the research also unveiled a significant negative link between a company's board independence and the quality of its sustainability reporting. Board financial expertise, audit committee meeting and audit committee financial expertise exhibited an insignificant negative relationship with sustainability reporting quality. The study concludes that corporate governance characteristics significantly influence the quality of sustainability reporting. The study therefore recommend that board's composition should be made up of individuals with relevant financial manager expertise and receive appropriate training to ensure that they carry out their functions in an appropriate manner.

**Keywords:** Sustainability Reporting Quality, Board Size, Board Independence, Board Gender Diversity, Audit Committee Financial Expertise.

## 1. INTRODUCTION

In the wake of a changed awareness, sustainability concerns have become highly relevant to society and are therefore also increasingly becoming a part of management decisions accounting practice and reporting practice both in corporations and public sector entities (Burrit & Schaltegger 2010; Adams 2013; Cebrián, Grace, & Humphris, 2013). Sustainability reporting serves as a critical medium for showcasing transparency and robust governance, primarily directed towards stakeholders (Sethi, Martell, & Demir, 2017). Companies have been forced to adapt in recent years to fulfil stakeholders' increasingly high expectations and informational needs (Osemeke, Adegbite, & Adegbite, 2016). The push for better reporting standards is driven by the need to be more transparent with stakeholders (Odriozola & Baraibar-Diez, 2017). According to Mon and Adau (2020), the goal of sustainability reporting is to satisfy the need for sustainability data from stakeholders regarding the effects that company operations have on the economy, environment, and society (EES). In the meantime, the sustainability performance of the firms and the trustworthy disclosure of sustainability information via sustainability reports can be used to address the concerns of the stakeholders of the companies (Windolph, Schaltegger, & Herzig, 2014).

For many businesses, integrating sustainability into core business objectives is still a difficult undertaking. The need to address issues relating to economic, environmental, and societal concerns is becoming more widely acknowledged, despite the fact that sustainable ecosystems are essential for the long-term survival of organisations. According to the KPMG survey, corporate sustainability reporting has significantly increased over time. By 2020, 80% of the top 100 corporations from 52 different countries have reported on sustainability, up from only 12% in 1993. The percentage of businesses reporting on sustainability increased from 35% in 1997 to an astonishing 96% in 2020 when examining the 250 largest revenue-generating businesses in the world that are included in the Fortune 500 (Threlfall, King, Schulman, & Bartels, 2020). Although companies have placed more emphasis on sustainability reporting over time, the environmental results in the US paint a confusing picture. Although there has been a decrease in water and air pollution, greenhouse gas emissions have increased.

Moscardo et al. (2013) have identified economic, environmental, social, and governance performance as pillars that underpin business sustainability. In light of this paradigm, it is vital to carefully analyse how the governance elements affect sustainability reporting practices. In particular, according to Oh, Chang, and Kim (2016), the presence of strong corporate governance practices is needed to enable

confidence and trust building between the company and its stakeholder groups and society as whole. Therefore, they argue that sustainability reporting and corporate governance reporting are important because the existence of robust corporate governance practices is essential for economic growth and building investors' confidence (OECD, 2004). The aim of corporate governance is to improve companies' best practices, with all stakeholder groups, through the provision of mechanisms, processes, and practices (OECD, 2004). For corporate governance structures to be effective, they should not only enable the co-ordination of all stakeholder groups' interest but also enhance CSR reporting disclosure's integrity, quality, and reliability (Zaman, Nadeem, & Carvajal, 2021).

Hence, it is important to explore how the corporate governance attributes influence SRQ in Nigeria manufacturing sector. Furthermore, the research will determine whether there are any significant links between corporate governance (board size, board independence, board expertise, board gender diversity, audit committee financial expertise and audit committee meetings) and sustainability reporting quality in Nigeria.

## **2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **Sustainability Reporting Quality**

Sustainability reporting has gained popularity as a crucial component of corporate responsibility disclosures since the late 1990s. According to Romero, Ruiz, and Fernandez-Feijoo (2019), it is now customary for large corporations to freely share sustainability data, whether digitally via websites or in printed formats like integrated reports, sustainability reports, or annual reports. This development can be partly attributable to the Global Reporting Initiative's (GRI) adoption of reporting standards (Hahn & Kuhnen, 2013). According to a 2013 poll by KPMG International, of the 250 largest corporations from 41 different countries, a remarkable 82% used the GRI principles for reporting on sustainability.

The idea of sustainable development, which emphasises meeting the requirements of the present generation without sacrificing the ability of future generations to meet their own needs, is the foundation of sustainability. According to the Brundtland Commission (1987), the study was created to suggest long-term environmental measures that would ensure sustainability after the year 2000.

Reporting on sustainability highlights an organization's value and governance structure. Additionally, it shows how the business' strategy and commitment to promoting a sustainable global economy are interrelated. Sustainability reporting, as

described by Gray (2010), is the disclosure of additional information on a company's environmental, economic, and social (EES) impacts. Adams (2002) suggested that a number of factors, including broader contextual factors, internal factors, or particular firm features, might affect sustainability reporting. According to the United Nations Global Compact (UNGC), sustainability reporting is essential for a company's long-term development and helps to add value to the community.

The GRI framework for sustainability reporting is the most widely used sustainability reporting framework (Isaksson & Steimle, 2009). GRI claims over 10,000 GRI framework reporters across 100 countries (GRI, 2021). Sustainability reporting is practised by more than two-thirds of the top 100 firms across 52 nations. The GRI framework has been utilised by more than two-thirds of the 250 largest corporations in the world that are included in the Fortune 500.

According to Threlfall et al. (2020), the Global Sustainability Standards Board played a key role in the development of the GRI standards for sustainability reporting. According to del Mar Alonso-Almeida, Llach, and Marimon (2013), there are numerous benefits for businesses to use the GRI reporting methodology. First off, it encourages closer relationships with stakeholders. In addition, it protects against potential criticism or backlash from stakeholders who could object to the lack of sustainability reporting. Finally, such reporting demonstrates the company's dedication to ethical business practises, which may appeal to potential investors. The development of sustainable business concepts has also been impacted by ideas like the Triple Bottom Line, Eco-Efficiency as pushed by the World Business Council for Sustainable Development, Global Compact, and The Natural Step.

## **Empirical Review**

Research examining the link between corporate governance and sustainability reporting yields inconsistent findings. It has been observed that larger businesses frequently offer more sustainability-related information than their smaller counterparts, and this is likely due to a variety of factors.

Various researchers investigating the impact of board size on sustainability disclosure have found a positive relationship between the two (Said, Hj Zainuddin, & Haron, 2009; Rao, Tilt, & Lester, 2012; Shamil, et al., 2014). According to legitimacy theory perspective, large number of members in board brings more expertise and ensures better sustainability reporting to address accountability and legitimacy issues (Mahmood & Orazalin, 2017). However, some studies also reported insignificant relationship between board size and sustainability disclosure (Sufian & Zahan, 2013).

Advocates of the stakeholder theory argue that organizations with a higher proportion of independent directors are more inclined to cater to the needs of diverse stakeholders by delivering high-quality information (Adams & McNicholas, 2007). Chau and Gray (2010) found that the level to which independent directors are selected on the board is positively related with the extent of voluntary disclosure. On the other hand, Xiang (2009) noticed that the number of independent directors has no remarkable effect on information disclosure level. According to Faisal, Tower, and Rusmin (2012), board independence is not a reliable indicator of sustainability communication. While Eng and Mak (2003) came to the conclusion that less corporate disclosure occurs as the number of directors rises.

Gender diversity on boards is thought to be a key component of good governance and has attracted a lot of attention from the corporate and academic worlds. Studies looking at the relationship between gender diversity and sustainability reporting have also found a positive association. (Adams & McNicholas, 2007; Faisal et al., 2012). These results show the crucial role played by female directors in sustainability disclosures and their significance in business settings (Tilt, et al., 2021). Because women think differently than men do, gender diversity helps to ensure that decisions are well-balanced (Bakar, Ghazali, & Ahmad, 2019).

Uyar, Kilic, and Bayyurt's (2013) study, ownership concentration is inversely correlated with firm disclosures. On the other hand, research by Akhtaruddin et al. (2009) and Kiliç, Kuzey, and Uyar (2015) has demonstrated a positive correlation between concentrated ownership and increasing business disclosures. This latter opinion is supported by Lourenço and Branco's (2013) research, which notes that businesses with superior corporate sustainability performance typically have lesser ownership concentration. The disparity in results highlights how intricate this link is and implies that environmental factors may be essential in modulating it. Aulia Indie, Uzliawati, and Mulyasari (2022) looked at any connections between managerial ownership and the standard of sustainability reporting in Indonesia. They used data from the four-year period of 2015 to 2019 as a basis for their study. Their investigation, which used the SPSS technique, found that managerial ownership has a big impact on how well a company reports.

Abd-Mutalib, Muhammad Jamil, and Wan Hussin (2015) examines if sustainability reporting exerts impact on the share ownership of 285 Malaysian firms for 2010 and 2011. The findings show that institutional ownership is positively impacted by sustainability reporting. Also, Nulla (2016) explores the correlation between sustainability reporting and institutional ownership in US for 2012 to 2014. Findings

suggest that sustainability reporting has a significant correlation with the institutional ownership.

Prior research investigating the effect of government ownership on CSR reporting in developing nations, however, produced conflicting findings. First, Ismail and Ibrahim (2008) discovered a large and unfavourable correlation between government ownership and CSR reporting. Other studies of the relationships between government ownership and the extent and quantity of CSR reporting showed significant and positive results (Ghazali, 2007; Habbash, 2016; Muttakin et al., 2015; Said et al., 2009).

According to Ghazali (2007), prior studies have found that companies with foreign ownership may be more transparent to the public. Previous research findings suggested that companies with foreign ownership have a greater inclination towards sustainability disclosure, primarily driven by heightened oversight in the resident country. Al Amosh and Khatib (2021) in their study found that foreign ownership positively affects environmental, social, and governance disclosure. In the same vein, Guo and Zheng (2021) found that foreign ownership positively was found to affect corporate social responsibility (CSR) disclosure in China. Baba and Baba (2021) concluded that foreign ownership positively affects social and environmental reporting.

To further the aforementioned literature, this study made the following assumptions:

*H<sub>01</sub>: There is no statistically significant relationship between board size and sustainability reporting quality.*

*H<sub>02</sub>: There is no statistically significant relationship between board independence and sustainability reporting quality.*

*H<sub>03</sub>: There is no statistically significant relationship between board gender diversity and sustainability reporting quality.*

*H<sub>04</sub>: There is no statistically significant relationship between board financial expertise and sustainability reporting quality.*

*H<sub>05</sub>: There is no statistically significant relationship between audit committee financial expertise and sustainability reporting quality.*

*H<sub>06</sub>: There is no statistically significant relationship between audit committee meetings and sustainability reporting quality.*

### 3. METHODOLOGY

The study utilizes the ex-post-facto research design. This approach aids in determining the cause-and-effect relationship between dependent and independent variables. To gather the necessary data, the study uses panel data, which combines time-series and cross-sectional data. The data was collected using a secondary source of data collection for the period 2015 to 2021. The sample size for the study comprises of 20 listed manufacturing companies listed on the Nigerian Exchange Group (NXG). A simple random sampling technique was adopted in this study in arriving at the selected companies. The justification for this approach is the enhancement of the sample’s representativeness of the entire population and the collation of information in an efficient manner

#### Model Specification

The following models was developed to help measure the impact of corporate governance on sustainability reporting quality.

$$SDQ = f(\text{Corporate Governance attributes, Control Variables}) \dots\dots\dots (1)$$

$$SDQ_{it} = \beta_0 + \beta_1 BODSIZE_{it} + \beta_2 BODINDP_{it} + \beta_3 BODEXP_{it} + \beta_4 BGD_{it} + \beta_5 ACFE_{it} + \beta_6 ACMEET_{it} + \beta_7 FSIZE_{it} + \beta_8 ROE_{it} + \mu_{it} \dots\dots\dots (2)$$

**Table 1**  
**Measurement of Variables**

Variable	Variable Type	Abbreviation	Measurement	Source
Sustainability Reporting Quality	Dependent	SDQ	Measured using categorical variables are used to measure the outcome. This benchmark rates the effectiveness of sustainability reporting practises on a scale of 0 to 4. The SRQ scores are 0 if there are no sustainability reports; 1 indicates that a sustainability report is present; 2 indicates that a sustainability report is present and the company has a sustainability committee that reports to the board of directors; and 3 indicates that a sustainability report is present and a non-audit firm offers assurance; 4: There is a sustainability report and one of the Big 4 or another audit company has given assurance.	Financial Statement
Board Size	Corporate Governance Attribute	BODSIZE	Number of directors on the board	Financial Statement

Board Independence	Corporate Governance Attribute	<b>BODINDP</b>	Number of Non-executive directors on the board.	Financial Statement
Board Expertise	Corporate Governance Attribute	<b>BODEXP</b>	Proportion of directors with professional qualification (ACCA, ACA, CIMA).	Financial Statement Financial Statement
Board Diversity	Gender Corporate Governance Attribute	<b>BGD</b>	Proportion of female directors on the board.	Financial Statement
Audit Committee Financial Expertise	Corporate Governance Attribute	<b>ACFE</b>	Proportion of member in the audit committee with professional qualification to total number	Financial Statement
Audit Committee Meeting	Corporate Governance Attribute	<b>ACMEET</b>	Numbers of meetings held during the year.	Financial Statement
Firm Size	Control Variables	<b>FSIZE</b>	National log of the total asset	Financial Statement
Profitability	Control Variables	<b>ROE</b>	Measure as a proportion of profit after tax to total equity.	Financial Statement

## Method of Data Analysis

For this research, we apply the ordered logistic regression model to gauge the relationships between an ordinal dependent variable and multiple independent variables. The level and quality of SRQ was represented using a five-scale ordinal variable. Alongside the regression analysis, basic statistical evaluations such as descriptive statistics, correlation analysis was performed.

## 4. RESULT AND DISCUSSION

### Descriptive Statistics

Table 2 shows the descriptive statistics for corporate governance characteristics and sustainability reporting quality. The result revealed that the mean level of sustainability reporting quality (SRQ) is 1.91 with a standard deviation of 0.98. Given that the level of sustainability reporting quality has a maximum of 4 and a minimum of 0. This suggest that the selected firms on average are reporting below average as regard to sustainability reporting disclosure.

As regard to the corporate governance attributes, the average board size (BSIZE) is 10 members for the companies. Given that maximum membership of 17 and a minimum membership of 4, there are extreme cases regarding membership composition of boards among the selected companies. However low (relative to the mean value), the standard deviation value of 3.13 is low (relative to the mean value),



suggesting that most of the companies in the study had board membership around the mean value of 10.

The average number of non-executive directors is 7 for the companies, with a maximum value of 15 and a minimum of 2, this implied that independent directors represent 46.67% of the board of directors of the selected firms. For board financial expertise (BFE), the average value is 0.176, with a range between 0.65 and 0, indicating that just 17.6 percent of the board members among the companies had effective finance expertise. The number of female directors on the board ranges from 0.455–0 with a mean of 0.165. This indicate that the average number of women on the board of selected firm is 16.5%. However, the standard deviation value of 0.137 is lower than the mean value.

In addition, examining the audit committee attributes, the average size of the audit committee meetings is 3.79 ranging from a maximum of 6 to a minimum of 1. The suggested that the audit committee of the selected firms meet an average of 4 times during the year to deliberate on the firms’ activities. The result of audit committee expertise shows an average of 0.17, with a maximum value of 0.83 and a minimum value of 0. This suggest that 17% of the members of the audit committee possess professional qualification to carry out their responsibilities. The reported average firm size (FSIZE) is 7.73, which would be N7.77 billion for the companies when translated from its log form. The maximum firm size reaches as high as 10.30 (about ₦ 10.30 trillion) and a minimum of 4.01 (₦4.01 billion). However, the standard deviation reported a value of 1.17 is low (relative to the mean value). This suggests that the sampled financial firms are large. Firm profitability (ROE) reported an average of 0.006 with a maximum value of 3.67 and a minimum value of -8.45. This indicates that the sampled companies yielded a return of 1% on average, which implies that the investments in those companies have not yet yielded the desired effects. The standard deviation reported a value of 1.12 is high (relative to the mean value).

**Table 2**  
**Descriptive Statistics for Corporate Governance Attributes**

	SRQ	BODSIZE	BODINP	BODEXP	BGD	ACFE	ACMEET	ROE	FSIZE
Mean	1.911765	9.742647	7.345588	0.176897	0.164729	0.168137	3.794118	0.006448	7.728722
Median	2	9	7	0.153846	0.153846	0.166667	4	0.094944	7.944375
Maximum	4	17	15	0.625	0.454545	0.833333	6	3.674461	10.30169
Minimum	0	4	2	0	0	0	1	-8.45916	4.010512

Std. Dev.	0.984853	3.136396	3.177184	0.127786	0.13794	0.164248	0.826574	1.1166	1.165886
Skewness	0.363896	0.367877	0.586151	0.741871	0.234808	1.105452	-0.78786	-5.09466	-1.45079
Kurtosis	3.033038	2.394329	2.49584	3.731946	1.867832	5.188226	4.428401	39.74894	6.081908
Jarque-Bera	3.007706	5.14631	9.227987	15.51101	8.513284	54.8331	25.63142	8241.071	101.5312
Probability	0.222272	0.076294	0.009912	0.000428	0.01417	0	0.000003	0	0
Sum	260	1325	999	24.058	22.40311	22.86667	516	0.876895	1051.106
Sum Sq. Dev.	130.9412	1327.993	1362.757	2.204447	2.568713	3.641928	92.23529	168.3174	183.5041
Observations	136	136	136	136	136	136	136	136	136

Source: Researcher Computation (2023) E-views.

### Correlation Matrix for Corporate Governance Attribute

The result is presented in Table 3. the correlation coefficient between Sustainability reporting quality and board size is 0.322, which is quite low and significant, suggesting that the number of board members and Sustainability reporting quality are positively correlated. In the same vein, SRQ and BODIND are positively correlated (0.188), which suggest that the larger the number of non-executive directors the higher the level of sustainability reporting quality. BODEXP is also positively correlated with SRQ (0.049). BGD (0.295) and ACMEET (0.094) had a positive correlation with SRQ respectively. On the other hand, audit committee financial expertise has a significant negative relationship with SRQ (-0.089). SRQ and Firm size is also positively correlated (0.291). This implies that larger firms tend to disclose more about their sustainability activities. In the same vein and ROE (0.157) and SRQ are positively correlated.

**Table 3**  
**Correlation Matrix for Corporate Governance Attribute**

Probability	SRQ	BODSIZE	BODINP	BODEXP	BGD	ACFE	ACMEET	ROE	FSIZE
SRQ	1								
BODSIZE	*0.321131	1							
BODINP	*0.18263	0.909187	1						
BODEXP	0.045338	0.096785	0.086456	1					
BGD	*0.29926	0.098182	-0.01204	0.27541	1				
ACFE	-0.06788	0.122005	0.207207	0.285626	0.106312	1			
ACMEET	0.095811	0.02227	-0.01502	0.116363	0.376479	0.000428	1		
ROE	0.156644	0.083177	0.095193	-0.1913	-0.02489	0.009029	0.267258	1	
FSIZE	*0.291331	0.412432	0.356679	-0.13308	0.342131	0.134185	0.246895	0.071941	1

**Table 4**

**Regression Results for Corporate Governance Attributes and Sustainability Reporting Quality**

Variable	Coefficient	Std. Error	z-Statistic	Prob.
BODSIZE	0.514840	0.145425	3.540255	0.0004
BODINP	-0.333406	0.136603	-2.440697	0.0147
BODEXP	1.435989	1.548253	0.927490	0.3537
BGD	3.304508	1.447580	2.282781	0.0224
ACFE	-0.928252	1.058697	-0.876787	0.3806
ACMEET	-0.283108	0.225058	-1.257934	0.2084
ROE	0.505300	0.256355	1.971097	0.0487
FSIZE	0.256424	0.170939	1.500087	0.1336
Limit Points				
LIMIT_1:C(9)	0.763291	1.352339	0.564423	0.5725
LIMIT_2:C(10)	3.230694	1.374972	2.349644	0.0188
LIMIT_3:C(11)	5.848808	1.439991	4.061699	0.0000
LIMIT_4:C(12)	6.934821	1.462497	4.741767	0.0000
Pseudo R-squared	0.117984	Akaike info criterion		2.538848
Schwarz criterion	2.795847	Log likelihood		-160.6417
Hannan-Quinn criter.	2.643286	Restr. log likelihood		-182.1300
LR statistic	42.97671	Avg. log likelihood		-1.181189
Prob(LR statistic)	0.000001			

The result from the logit estimates also reports the log-likelihood chi-square and pseudo-R-square for the model. These measures give a general gauge on how the model fits the data. For instance, the LR statistic (which is based on the Wald test) indicates the efficiency of the estimates. The Wald test (reported in terms of the probability of Chi-square) evaluates the overall significance of the estimated equation. The probability of the Wald test coefficient is significant at the 1 percent level (prob > 0.000). This shows that the LR test suggests a highly significant value. The null hypothesis of no significant relationship between all the independent variables combined (corporate governance attributes) and the dependent variable (SRQ) is effectively rejected from this output. Thus, the estimated model has impressive overall significance.

In terms of significance and signs, the coefficients are similar for the variables. However, the coefficient sizes are essentially different. The coefficient of BODEXP,

ACMEET and ACFE fails the significance test, indicating that BODSIZE, BODINP and BGD are the main factors that influence the level of sustainability reporting quality.

Board size (BSIZE) has a significant positive ( $0.00 < 0.05$ ) impact on sustainability reporting quality at 5% significance level. This shows that the larger the board, the more the level of disclosure the company is likely to report on its sustainability. This is a high impression rate that indicates that adding one more board member can strongly increase level of sustainability reporting by about 51%. A similar result is found for board gender, where the result shows that it has a significant positive ( $0.02 < 0.05$ ) impact on SRQ among the companies. This suggests that the more women on the board the higher the quality of sustainability reporting of the firm. Given the coefficient of BGD is 3.30, a one-member addition of female on the board will lead to sustainability reporting quality by three-fold.

On the other hand, a number of non-executive directors (BODINP) with a coefficient of -0.150 is significantly negative with sustainability reporting quality ( $0.014 < 0.05$ ). This means that as the number of non-executive directors increase the level of sustainability reporting quality will reduce by about 33%. Financial expertise of board members is positively insignificant at p-value ( $0.353 > 0.05$ ) at 5% level of significant. This implies that board financial expertise tends to increase the quality of sustainability reporting in the companies. Indeed, adding one more director with financial expertise to the board will increase the quality of sustainability reporting of the company by about 1.44. Similarly, audit committee meeting does not pass the significance test with the p-value ( $0.21 > 0.05$ ) greater than 0.05. This implies that the audit committee meeting does not affect the quality of sustainability reporting. In the same vein, audit committee financial expertise is negatively insignificant at p-value ( $0.38 > 0.05$ ). This suggest that an increase in the audit committee financial expertise will lead to about 93% decrease in the quality of sustainability reporting of the sampled firm. The control variables of firms' size and profitability revealed an insignificant relationship with sustainability reporting quality.

## Discussions

The ordered least square result in Table 4 (on Corporate Governance Attribute and Sustainability Reporting Quality) is employed. In the results, the p-value of the LR statistic (0.000) is less than 0.05. Therefore, we reject the null hypothesis and accept the alternative hypothesis, which states that corporate governance attributes have a significant relationship with the sustainability reporting quality. This finding implies that corporate governance attribute has influenced sustainability reporting quality in

the Nigerian Manufacturing sector and should therefore be taken into cognizance in explaining the sustainability reporting. The result from this study is in line with the stakeholder's theories which believes that it is the responsibility of the board of directors to act in the best interest of the stakeholders by providing them with information with accurate and transparent information.

Considering the corporate governance attributes variables, the result of the board size (BSIZE) is significant ( $0.000 < 0.05$ ) at 5% significance level. Also, the result shows that board size (BSIZE) has a significant positive relationship with the sustainability reporting quality (SRQ). This is because the z-statistics value of 3.54. This suggests that an increase in BSIZE enhances the probability that the firms will also increase the quality of sustainability reporting by as much as 0.51 percentage points. This result emphasises the board's role in facilitating effective corporate governance mechanisms and an efficient financial reporting process. Also, the board bears a critical responsibility of monitoring and taking strategic decisions. This result is consistent with the studies of Erin, Adegbeye and Bamigboye (2021); Said et al., 2009; Rao et al., 2012; Shamil et al., 2014). However, the result contradicts the findings of Sufian and Zahan, 2013) who reported insignificant relationship between board size and sustainability disclosure.

Furthermore, the result of board independence (BIND) showed a significant negative relationship with the sustainability reporting quality (SRQ), having a Z-value of -2.44 at a p-value ( $0.014 < 0.05$ ). This implies that an increase in board independence will decrease the quality of sustainability reporting disclosure. This outcome support stakeholder theory that believes companies with more independent directors tend to satisfy various stakeholders by providing quality information. This study's finding is in agreement with the work of Erin et al., (2021), which document a negative impact of board independence on SRQ. The study of Chau and Gray (2010)

Another important board characteristic variable is board financial expertise (BFE); the finding from the study, however, shows that board financial expertise exerted an insignificant and negative impact on sustainability reporting quality with a Z-value of -0.15 and a p-value ( $0.88 < 0.05$ ) (See Table 4). This signifies that an increase in the board financial expertise causes sustainability reporting quality to drop by 33%.

Another important feature is board gender diversity. Most studies argued that board gender diversity is considered an important attribute in enhancing board effectiveness. Analysis from this study appears to confirm this strand of argument given that the observed coefficient of BGD is positive and passes the significance test at the 5 percent level (p-value =  $0.02 < 0.05$ ). This means that an increase in

board gender will result in an increase in sustainability reporting quality by three-fold.

Other corporate governance attributes of audit committee meeting and audit committee financial expertise showed a negative and an insignificant relationship with sustainability reporting quality having a coefficient of -0.283 and -0.928 respectively.

## 5. CONCLUSION AND RECOMMENDATIONS

This study examined the impact of board room diversity on sustainability reporting quality of firms operating in the Nigerian Manufacturing sector. In achieving the objectives of this study, data were obtained from the annual reports, NSE fact-book and corporate websites of 20 quoted companies in the Nigerian manufacturing sector. There are three hypotheses formulated and tested using ordered least square regression analysis. From the findings of this study, the concluded that corporate governance attributes have a significant relationship with sustainability reporting quality of firms. This implies that strong commitment to corporate governance will influence the quality of sustainability reporting. Based on the findings of this research, this study, therefore, recommended that the board's composition should be made up of individuals with relevant financial manager expertise and receive appropriate training to ensure that they carry out their functions in an appropriate manner.

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