EFFECT OF AUDIT COMMITTEE INDEPENDENCE AND GENDER DIVERISTY ON SUSTAINABILITY REPORTING DISCLOSURE OF QUOTED INDUSTRIAL GOODS COMPANIES IN NIGERIA

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Abstract

This study examined the effect of audit committee independence and audit committee gender diversity on sustainability reporting disclosure of quoted industrial goods companies in Nigeria. The study adopted ex-post facto research design. Secondary data were collected from the annual reports of all the 13 industrial companies for a period of ten years from 2010 to 2019. Descriptive statistics and multiple regression were employed for Data analysis. The result revealed that audit committee independence has positive and significant effect on sustainability reporting disclosure while audit committee gender diversity has insignificant and negative effect on sustainability reporting disclosure of industrial goods companies in Nigeria. Based on the research findings the study recommended that the Nigerian corporate business most especially industrial goods companies should consider increasing the number of independent directors on the board because this will contribute to improving corporate sustainability disclosure and consequently reduce information asymmetry, which not only clarifies the conflicts of interests between shareholders and management but also makes management more accountable.

Keywords: sustainability reporting, audit committee independence, audit committee gender diversity.

Introduction

There is a growing public awareness of the social, environmental and economic impact of companies and the role they can play beyond their primary economic functions. This is also accompanied by the awareness of government and businesses that social and environmental attention will not adversely affect their economic growth. The growth in community awareness and interests have an influence on the decision by management to disclose information about social and environmental practices within the corporate annual report (Ali & Imad, 2019). Beyond the financial disclosures, the stakeholders persist to demand accountability and transparency of non-financial disclosures as regards the firms' sustainability performance. Mostly, the audit committee is the corporate governance mechanism that monitors disclosure and determines the extent of voluntary disclosure made

in the firms (Carcello& Neal, 2003). With the oversight responsibility of the audit committees, firms are expected to meet the stakeholders' expectations through sustainability reporting.

Nevertheless, voluntary sustainability disclosures have a tendency to improve the companies' corporate image (Orazalin& Mahmood, 2018). Studies have identified the possible benefits of the sustainability reporting process, which include increased efficiency; higher levels of employee retention and lower cost of capital (Ahmed &Manab, 2016; Al-Shaer& Zaman, 2016; García-Sánchez et al., 2019). Following the Global Reporting Initiative (GRI), sustainability reporting usually contains three categories namely economic, environmental and social indicators. Moreover, exploring the determinants of sustainability reporting remain substantial issue among academics, practitioners and policymakers.

Over the last two decades, the increase of social activity and the rise in the number of corporate collapses have brought sustainability disclosure to the top of public attention. Nowadays, companies are pressured not only to meet financial targets but also to match and balance multiple bottom lines and manage the concerns of multiple stakeholders. Sustainability disclosure may affect companies' financial performance and their stakeholders by reducing information asymmetry between management and stakeholders. Brown and Dacin (1997) mention that customers who are aware of corporate sustainability activities can improve brand value and increase the demand for a company's products. Nevertheless, there are some worries about the quality and quantity of sustainability disclosure. Managers use sutainability disclosure to raise their reputation instead of reducing information asymmetry between stakeholders and managers (Ball, Owen & Gray, 2000). Choi, Lee and Park (2013) also note that managers can strategically use CSR disclosure to hide their opportunistic attitude.

The role of the audit committee is imperative in minimizing the opportunism of managers to improve sustainability disclosure. Theoretically, ACis observed to function as a mechanism of accountability where it ensures the quality of financial reporting (Brennan & Solomon, 2008). AC accountability role needs to go beyond optimizing the quality of reporting but also by providing reliable and credible information to all stakeholders. AC may have an important role to play in addressing environmental and social responsibility issues through determining, managing, and controlling the risks associated with these issues. Audit Committee help to assists in reviewing the company's internal control and risk management systems and assessing the effectiveness of company risks. AC could help in assessing not only financial

risks but also those related to social and environmental risks when auditing financial reports. The AC, as a basic decision-making Board, is expected to controlfinancial and non-financial reporting practices and reduce the information asymmetry between managementand stakeholders (Karamanou&Vafeas, 2005). The wider role of AC is more inclined today to assurancethat firms take responsibility for long-term economic, environmental and social impact on stakeholders (Kolk&Pinkse, 2010).

The efficient management of financial statements by the audit committee is highly influenced by the independence of the committee. The audit committee plays a vital role in corporate governance, financial reporting and auditing and better performance is derived when the members of the committee are independent that is, persons that have no prior personal or financial relationship with the said organization and its executives as there is a less likely probability of fraud and unethical behavior when the members of the committee are independent (Persons, 2005). Independent directors go above and beyond to ensure that the board play by the books they go as far as bringing in external specialists and consultants in situations that are considered dicey and this helps the firm to establish a moral environment which adds to firm value (Kantudu & Samaila, 2015).

The importance of gender diversity has been identified by prior studies (Gallego-Álvarez et al., 2010; Green & Homroy, 2018). Gender diversity tends to enhance corporate productivity and performance through the effectiveness of the board (Carter et al., 2007). In addition, it is necessary for firms to mirror the disparity within society. Thus, gender diversity is desirable in corporate governance from the social cohesion perspective, which could enhance corporate value (Gallego-Álvarez et al., 2010). Female directorship tends to have high regards for their roles by expending more effort on their tasks accordingly, which could enhance effectiveness in terms of information flow and decision making (Pathan & Faff, 2013).

Some studies indicated that the association between audit committee characteristics and Sustainability Reporting Disclosure in advanced countries, there is still paucity of research works in this area in the developing economies. Even the few existing studies in Nigeria are characterized by inconsistent and mixed findings leaving the area amenable to further studies. Hence, the broad objective of this study is to examine the effect of audit committee independence and gender diversity on sustainability disclosure of quoted industrial goods companies.

The study hypothesized that audit committee independence and gender diversity have no significant effect on sustainability disclosure of quoted industrial goods companies.

Review related literature

Conceptual Reviews

Sustainability Reporting

Sustainability reporting is the practice of disclosing a company's environmental, social, and governance (ESG) performance. It involves communicating the organization's efforts, impacts, and commitments regarding sustainability to stakeholders such as investors, customers, employees, and communities. Sustainability reports typically cover areas like carbon emissions, resource usage, diversity and inclusion, labor practices, and community engagement. The goal is to provide transparent and comprehensive information to enable informed decision-making and accountability regarding sustainability efforts.

Although, according to United Nations Environment Programme (2016) Sustainability Reporting is an amorphous expression, a terminology which is having different meanings to different people such that there is no internationally agreed definition of Sustainability Reporting as a number of definitions have been identified. Saji (2004) defines Sustainability Reporting as a systematic tool for putting together and presenting sustainability information need for the process of management, and is also useful to stakeholders. Uwuigbe, et al (2018) defines sustainability reporting as "a tale disseminated by a firm about the environmental, social and societal efforts brought about by its ordinary exercises. A sustainability reporting also shows the firm's quantities and management model and exhibits the connection between its procedure and its duty to an economical worldview". It is glaring from these definitions of sustainability reporting by Saji (2014) and Uwuigbe et al (2018) that Sustainability Reporting is a form of management information systems (MIS) for use of Management, which is also very useful for various stakeholders.

Conversely, GRI (2016) defines Sustainability Reporting and asserts that it is the practice of measuring, disclosing and being accountable to internal and external stakeholders for organizational performance towards the goal of sustainable development. More specifically, GRI (2016) also asserts that the Sustainability Reporting is a report published by accompany or organization about the economic, environmental and social impacts caused by its everyday activities.

According to GRI concept, Sustainability Reporting should provide a balanced and reasonable representation of the sustainability performance of reporting organization – including positive and negative contribution, in the organization. Ernst and Young (2013) corroborate this and reveal that sustainability reporting provides major value to organizations because it enhances correct measurement of social and environmental performance; improves reputation, compliance with regulations, risk management, cost savings which enhances long-term profitability and access to capital.

In similar vein, ACCA 2013, explains that Sustainability Reporting is a publication that reflects the performance of the organization against the Environmental, Social and Governance criteria. The process involves planning the output, identifying and engaging stakeholders, producing the reports, verification and continuous performance monitoring. And Global Reporting Initiative sees Sustainability Reporting is the process whereby companies disclose their economic, environmental and social impacts on society and environment as a result of their daily business activities (Global Reporting Initiative (GRI), 2019). Put succinctly, United Nations Environment Programme (2016) sees Sustainability Reporting as a broad term used to describe a company or an organization reporting on its environmental, social and economic impacts and performance. Omoloso, Wise, Motimer and Jraisant (2020) define Sustainability Reporting as a voluntary activity that has become prominent among business enterprises, which provides organizations with several benefits. Such benefits include contribution to the enhancement or organization's reputation, thereby attracting investors.

Audit Committee Independence

Temple, Ofurum and Solomon (2016) stated that independence of an audit committee is an AC's unbiased nature in decision making during the cause of performing his or her duties of auditing and financial reporting. Independent directors have been viewed as directors who ensure that the committee, as a member of sub- committee of the board of directors' monitors and protects the interests of shareholders. Hossein and Yasser (2017) explained that one of the most important characteristics of an audit committee is audit committee independence, ACI influences the effectiveness of the committee in controlling both financial and non-financial reporting disclosure. Pfeffer (1972) finds that external directors have more ability to grasp complex environments and possess robust knowledge and experience to support their monitoring function.

According to Beasley (1996) High number of independent directors inside the audit committee reduce management opportunities to manipulate both financial and non-financial statements reporting also, independence AC improves the credibility and reliability of sustainable disclosure of accounting information that free from misstatements. The importance of audit committee independence is rooted in regulatory codes requiring an audit committee to be composed of non-executive directors.

Principle 11.4.3 of Nigeria code of corporate governance, (2018) and section 275 of CAMA 2020 required public company to have at least three independent non-executive directors that are independent in nature, character and judgment. A non-executive director is not a part of the management of the company; an independent director is not only a non-executive director but also a director who holds no substantial shares of the company are expected to be a member of the company's audit committee. ACs with independent members are more successful safeguarding the auditor's independence (Carcello & Neal, 2003; de Andres Suarez et al, 2013).

Audit Committee Gender Diversity

According to the agency theory, difference in gender can decrease the effectiveness of audit committee. According to Powell and Anisc, (1997) women are more concentrative, riskless and more ethical compared to men. The decisions made by companies depend on the presence of a female member in the AC, which can directly or indirectly influence the success of the committee. One of the features of women is prudency and risk avoidance. They are more prudent in handling financial issues and are risk avoidant in nature. Also, in judgments and behaviors female are neutral (Nelson, 2012).The composition of audit committees in terms of gender plays a significant role in the promotion of effective corporate governance practices. However, Differences in cognitive function, conservation and decision making may have significant implications on the success of AC (Ibrahim & Mohammad, 2019).

AC female member perceives risks and opportunities differently compared with male audit committee member when faced with similar issues. Furthermore, Auditing and forecasting of business concerns among men and women produces different responses. Secondly, compared to men, women show less tolerance to opportunism in their decision making (Ambrose &Schminke, 1999; Schminke& Ambrose, 1997).Kumar [2010] revealed that female AC

member equity analysts exhibit superior forecasting ability compared to their male counterparts. Female AC member resolve moral issues in auditing, reporting and disclosures by applying more prescriptive reasoning than male AC member. The study also suggests that gender-diverse AC members (women) are more likely to engage in deeper discussions on a wider spectrum of perspectives than men AC members (Thorne et al., 2003).According to Carter, Simkins, and Simpson (2003) AC member gender diversity suggest that a heterogeneous director has a broader understanding of complexities in the environment compared to a homogenous audit committee member. Based on agency theory perspective, AC member gender diversity nurtures committee independence and improves quality of monitoring. Similarly, a largely independent directors and diversity of gender of audit committee members contributes to firm legitimacy as it can approach a wider stakeholder's group and strengthen relations between the firm and stakeholders. More so, committee member gender diversity discussions in the case of female directors in the committee is likely to have a positive impact on the firms.

Empirical Review

Pareek, Pandey, Sahu Gupta (2020) explored the effect of audit committee independence, as an important corporate governance parameter, on the sustainability disclosures practices of 38 listed Indian companies during the period of 2013-17. Sustainability performance is measured with the help of content analysis considering Global Reporting Initiative (GRI) indicators in three major parameters, such as, social, economic and environmental. Using panel data regression analysis, the study finds a significant positive relationship between audit committee independence and the economic parameter of sustainability disclosure while there is no relationship between audit committee independence and social and environmental disclosure. This study was done in another country and as such its findings cannot be used for the purpose of effective decision making in the Nigeria context due to legal and behavioural complexities.

Adegboye, Ojeka, Alabi, Alo and Aina (2019) investigated the influence of audit committee characteristics on the sustainability disclosure among the Nigerian listed banks. To assess these hypotheses, the study used the annual reports for 2014–2016 of 10 out of 15 Listed Money Deposit Banks in Nigeria in which the sampling selection was purposive. All information is extracted from the annual reports, sustainability reports and the websites of the selected banks. Using the Fixed Effect regression estimator of panel data for ten (10) listed

banks in Nigeria over the period of 2014–2016. The result showed that the influence of audit committee independence and gender diversity of audit committee are significantly positive on the sustainability disclosure. However, the audit committee magnitude has a negative and significant influence on the sustainability disclosure. This study focused on deposit money banks while the current study is on industrial goods companies bridging the gap in sectorial peculiarities.

Ali and Imad (2019) examined the impact of audit committee characteristics on the level of environmental and social disclosures in listed banks in Borsa Istanbul. The study focuses on thirteen banks these listed in the Borsa Istanbul for financial year-ends on 31 December 2017. The characteristics of the Audit Committee (AC Size, AC Meetings, and AC Expertise) were identified as independent variables in the study while the dependent variable was measured using the GRI Guidelines. Multiple linear regression analysis is used to address the research question and testing Hypotheses. The results of the study showed that there is no statistically significant relationship between the characteristics of the audit committee and the environmental and social disclosures.

Makhdalena (2019) ascertained whether the audit committee and foreign ownership influence the sustainability report with leverage, size and independent commissioners as control variables. The population of the study are mining companies listed on the Indonesia Stock Exchange and have complete data on audits, independent commissioners, foreign ownership, size and leverage for the period 2012 - 2015. Data analysis techniques in this study used multiple regression with the help of SPSS. The results of the study indicate that audit committee does not involve sustainability report, while foreign ownership is considered negative for sustainability report. The study is done in a different economy and as such the findings can not be used in Nigeria due to methodological and behavioural complexities.

Bakar, Ghazali and Ahmad (2019) focused on the gender, age and ethnic diversity and the objective is to examine the impact of these board diversity elements on the extent and quality of sustainability reporting (SR) among the top 100 Malaysian listed companies. Data is collected from the annual reports of the sampled companies for the year-end on and after 31 December 2016. The data then was analyzed through content analysis method and independent t-test to accomplish the objective. This study found that the average proportion of women directors out of the total number of board members is 17% and the average age of

the board members is 61 years old, which is above the minimum retirement age. In addition, it was also found that having women board members has a significant impact on a company's SR but none on the aspects of age and ethnic diversity. Women directors have a different way of perception, thinking, and ideas that could influence companies' sustainability initiative and reporting.

Theoretical Framework

Legitimacy Theory

Legitimacy theory is derived from the concept of organisational legitimacy. It grants an organisation the right to carry out its operations in an agreement with society's interests. Hence organisations seek to operate within the norms and aspirations of their respective communities. When there is a disparity between two value systems, there is a threat to the company's legitimacy. The argument surrounding legitimacy theory is that companies can only survive if they are operating within the framework of the society's norms and values. Greiling and Grüb (2014) stress that an organisation must be accountable for its actions. Legitimacy theory is perceived as a possible reason for the recent rapid increase in environmental disclosure as corporate entities strive to be greenish in their operations (Braam, Hauck &Huijbregts, 2016; Lan, Wang & Zhang, 2013; Prasad, Mishra &Kalro, 2016). Corporate disclosures represent a response to environmental pressures and the urge to legitimate their existence and actions. Companies disclose social and environmental information voluntarily to maintain their legitimacy. They aim to obtain the impression of the society that they are socially responsible. This reality of this perception lies in the strict adherence to the rule of law, and investors and citizen's right to a healthy environment enshrined in the Constitution.

Stakeholder Theory

Stakeholder theory is also considered as an explainable theory for corporate environmental accounting (Deegan & Blomquist, 2006; Depoers, Jeanjean& Jérôme, 2016; Liao, Luo & Tang, 2015). It involves the recognition and identification of the relationship existing between the company's behaviours and its impact on its stakeholders. The stakeholder theory perspective takes cognisance of the environment of the firm, including customers, suppliers, employees, and other segments of the society. As a result of this relationship, the company

requires support from the stakeholders to survive. The connection must be managed if the company considers the stakeholders important. One of the ways of maintaining that relationship is by providing information through voluntary social and environmental disclosures to gain support and approval of these stakeholders. These stakeholders of the enterprise and lobbying decisions of these individuals are determined by the stakeholders who possess power, urgency, and legitimacy (Ahmad, 2015). The study in a more broad manner the study anchored on the legitimacy theory which holds the argument that legitimacy theory directs that companies can only survive if they are operating within the framework of the societies norms and values.

Methodology

The study adopted ex-post factor research design which it's considered to be appropriate based on historical collection of data from the sampled companies for the period of ten years. Annual financial statements are a preferred choice for the purpose of data collection based on the type of data to be collected, availability of data to be collected and ease of results comparability. Population includes all the thirteen (13) industrial goods companies quoted on the Nigerian Stock Exchange as at 2021. Since the population is small, the whole companies were used for the purpose of data collection. The data was collected from the annual reports of the sampled companies for a period of ten (10) years (2010 to 2019).

The data for the study is panel in nature and in order to check for endogeneity, the study used the Hausman specification test. Additional diagnostics tests adopted in this study includes the test for Multicollinearity using the Variance Inflation Factor (VIF) and the Breutsch-Pagan test for heteroscedasticity, to check for the fitness of model and reliability of findings. The study used audit committee independence and board gender diversity as predictor variables. The model specification are adapted in line with the work of Alkabas (2016).

SR (BI, ACGD) ……….……………………………..…..…………………………….(1)

This equation can be rewritten statistically as;

$SR_{it} = bo + \beta_1 ACI_{it} + \beta ACGD_{2it} + \mathcal{E}_{it}$……………..……………………….……………….............

(2)

Where:

SR= Sustainability Reporting, ACI= Audit Committee Independence, ACGD= Audit CommitteeGender Diversity, b0 = intercept (constant), i= cross-sectional time, t=time series, ε = Error term

Measurement of Variables

S/N	Variable	Type	**Measurement**	**Source**
1	Sustainability Reporting Discosure (SRD)	Dependent	The extent of sustaianbility disclosure of company *i*from 2010-2019 (Total number of words related to sustainability issues in the annual report of the company)	Onyinye and Amakor (2019), Helen, Francis and Ardi (2018).
2	Audit Committee Independence	Independent	Proportion of independent auditcommittee members to the total number of audit committee members	Meibo and Lawrence (2018),Mao-Chang(2017), David, Martins and Glyn (2015),
3	Audit Committee Gender Diversity	Independent	The proportion of female members of the AC to the total audit committee size	Helen, Francis and Ardi, (2018), Ibrahim and Mohammad (2019) and María del et al (2019).

Source: Researcher's compilation, 2021.

Results and Discussions

This section presents the data and discusses the results of the analyses and interpretations. The descriptive statistics and other univariate test results are first presented and interpreted. Thereafter, the results of the panel data analyses, as well as those of correlation matrices and diagnostic tests are presented and interpreted as well. Inferences derivable from these results,

as reflected in the reviewed literature, are discussed after the tests of the hypotheses earlier formulated by the study.

Descriptive Statistics

This section contains the description of the properties of the variables ranging from the mean of each variable, minimum, maximum and standard deviation. The summary of the descriptive statistics of the variables are presented in table 1 below.

Table 1: Descriptive Statistics

Variables	OBS	Mean	STD	Min	Max
SR	130	623.952	849.113	11	3854.000
ACI	130	.461	0.125	.000	1.000
ACGD	130	0.102	0.152	0.000	0.270

Source: STATA Output, 2021.

The mean value of the dependent variable of the study, the extent of sustainability reporting (SR) is623.952 with a range of 0 to 3854. Based on these figures, it is evident that there are large deviation in the volume of the sustainability reporting of the sampled companies in their annual reports. High deviation from mean is as a result of variation in the sustainability information made available. Similarly, the AC independence (IND) is measured as ratio of independent non-executive director members to total members on the committee. Table 1 also shows the average of AC independence across the sampled firms is 46.1% and the standard deviation is 12.5%. The standard deviation of 12.5% is far from the mean value of 46.1% indicating divergence of the values of independence among the studied firms over the period of study. The minimum value of 0% shows the presence of companies with no

independent non-executive directors on the committee while the maximum value of 100% indicates that in some companies all members of Audit Committee are independent non-executive directors. For the second independent variable, the study measure board gender diversity by proportion of female AC members to the total size of the AC.The average percentage of female representation on the board is 10.2% and the standard deviation is 15.2%. The standard deviation of 15.2% is above the mean value of 10.2% indicating divergence of the values of female members among the studied firms over the period of study. The minimum value of 0% is an indication some companies have no female members on the AC while the maximum value of 27.0% showed that the highest female representation on the board by companies.

Correlation Matrix

The Pearson correlation analysis matrix shows the relationship between the explanatory and the explained variable and also the relationship among all pairs of independent variables themselves.

Table2 presents the correlation matrix for all the variables.

Table 2: Correlation for Dependent and Independent Variables

	SR	**ACI**	**ACGD**
SR	1.0000		
ACI	0.486	1.0000	
ACGD	0.210	-0.238	1.0000

Source: STATA, 2021

Table 2 presents the correlation matrix for the variables used in the study. The results of the Pearson correlation analysis indicate that the extent of sustainability reporting disclosure is positively correlated to audit committee independence, with a correlation coefficient of 0.486 and with audit committee gender diversity on the other hand, with a correlation coefficient of 0.210. This shows an all-positive correlation between the dependent and independent variables.

Regression Diagnostics

The two robustness tests conducted in this study are multicollinearity and heteroskedasticity tests. These tests are important to regression estimation in order to satisfy the assumptions of the Ordinary Least Square (OLS) of homoskedasticity and absence of exact correlations among the independent variables in the model.

Table 3: Tolerance and Variance Inflation Factors

Variable	VIF	1/VIF
ACI	1.05	0.911500
ACGD	1.07	0.932226
Mean VIF	1.05	

Source: STATA, 2021.

Decision rule

VIF = 1 (Not correlated)

1 < VIF < 10 (Moderately correlated)

VIF >=10 (Highly correlated) (By Stephanie, 2015)

Variance inflation factors (VIF) measures how much the variance of the estimated regression coefficients is inflated as compared to when the predictor variables are not linearly related. The results from the Table 3 show that the variables do not have multi-collinearity problem (no correlation between predictors) since the VIF's are less than 5. The tolerance level in the above table is also within the acceptable range of 1. This shows that the independent variables are appropriate and well fit into the models. As shown in Table 3, since none of theVIF value reached a value of 5, there is no problem of multicollinearity among the included variablesin the model thus the study maintained the two variables for the purpose of estimation.

Test for Heteroskedasticity

Heteroscedasticity is used to test the normality of residuals.

Table 4: Heteroskedasticity

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.436784	Prob. F(4,124)	0.1440
Obs*R-squared	8.484123	Prob. Chi-Square(4)	0.1443
Scaled explained SS	15.02818	Prob. Chi-Square(4)	0.0046

Source: STATA, 2021

The Breusch-Pagan or Cook-Weisberg test was used to test for the existence of heteroskedasticity and the result shows chi2 0.23 and p-value 0.1220. The null hypothesis in this test assumes that the variance of the residuals is constant. If the p-value is significant at 5%, then there is substantial evidence to reject the null hypothesis indicating the presence of heteroskedasticity.

Hausman Specification Test Result

Hausman Specification test specifies the actual model that best explains the study. It helps to specify if a random effect model or a fixed effect model is to be run with its probability value. Hausman Specification test null hypothesis is that the preferred model is random effect; the alternate hypothesis is that the preferred model is fixed effects. If the P-value is less than 0.05, then we do not accept the null hypothesis and conclude that the preferred model is the fixed effect model. However, if the P-value is greater than 0.05 at 95% confidence interval, we do not reject the null hypothesis and conclude that the preferred model is the random effect model.

Table 5: Hauseman Specification Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	1.20417	4	0.030

Source: STATA, 2021

From Table 5, Hausman specification test result shows a chi2 value and p-value of 1.20417 and 0.030 respectively, which implies that a fixed effect model is preferred.

Table 6: Summary of pooled OLS Result Regression Result

	Coef.	t	P>|t|
ACI	0.1607	3.00	0.004
ACGD	-0.84956	0.03	0.987
R-squared	0.2015		
Adj R-squared	0.1639		
F-Statistics	5.17		
Prob > F	0.0001		

Source: STATA Output, 2021.

The result of the regression analysis revealed that the R-squared, often referred to as coefficient of determination of the variables is 0.2015, as shown on Table 6. This implies that 20.15% of the changes in sustainability reporting (GRI) is explained by the independent variables (Audit Committee gender diversity and Audit Committee Independence). This is also confirmed by the F-statistics of 5.17 whose probability (0.0001) implies that the independent variables combined are a good predictor of sustainability reporting (they are statistically significant). A unit change in audit committee independence will increase sustainability reporting by 16%and it is statistically significant with probability 0.004 which is less than 0.05 significant level at 95% confidence interval for rejecting the null hypothesis of no significant effect. Also, a unit change in audit committee gender diversity will decrease sustainability by 0.17, and it is not statistically significant with probability0.987 which is greater than 0.05 at 95% confidence interval for rejecting the null hypothesis of no statistically significant effect. The study aligns with the findings of Chariri, Januarti, Nur, and Yuyetta (2018) that revealed AC independence has significant effect on sustainability disclosure and which was corroborated by Naseer and Rashid (2018).

Conclusion

This study examined the effect of audit committee independence and gender diversity on the extent of sustainability reporting disclosure of quoted industrial goods on Nigerian Stock Exchange from 2010 to 2019. The dependent variable of the study, the extent of sustainability reporting disclosure, is measured by the total number of words that are dedicated to sustainability issues in the annual reports of the sampled industrial goods companies. On the other hand, in the light of previous literature, two audit committee characteristics are

considered as independent variables that may have a relationship with the extent of sustainability reporting of companies, namely, audit committee independence and audit committee gender diversity.

Summary of findings

1. The findings of the study revealed that for audit committee characteristics considered in the study, only independence has a statistically significant and positive effect on the extent of sustainability reporting, hence the first hypothesis of the study is rejected. The audit committee plays a vital role in corporate governance, financial reporting and auditing and better performance is derived when the members of the committee are independent i.e. persons that have no prior personal or financial relationship with the said organization and its executives as there is a less likely probability of fraud and unethical behavior when the members of the committee are independent.

2. On the other hand, the result provided statistical evidence that audit committee gender diversity is unrelated to the extent of sustainability reporting. The low degree of gender diversity on the committees of the sampled firms for the time period covered in the study could provide an explanation for the statistically non-significant relationship between this variable and sustainability reporting.

Recommendations

Based on the findings the followings were recommended;

This study recommends that increasing the number of independent directors on the board because this will contribute to improving corporate disclosure and consequently reduce information asymmetry, which not only clarifies the conflicts of interests between shareholders and management but also makes management more accountable.

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