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Effect of Board Capabilities on Environmental, Social and Governance Disclosure Practices of Listed Non-Financial Firms in Nigeria

Musa Inuwa Fodio[1], Abdulkarim Shaibu Alhassan[2] & Mohammed Bamanga Bello[3]
[1]&[2]Department of Accounting, Nasarawa State University, Keffi
[3] Department of Accounting, Federal University of Lafia, Nigeria
Corresponding Email: bellomohammed36@gmail.com

Abstract
This study investigated the effects of board capabilities (female director qualification, environmental expertise of directors, and board activity) on environmental, social and governance (ESG) practices of listed non-financial firms in Nigeria. The population for the study consists of 116 non-financial firms in Nigeria while the sample size of the population is forty-eight (48) firms. Ex-post facto research design was used. A generalized least square regression technique was employed to analysis the panel data. The results revealed that female director's qualifications have a positive insignificant effect on ESG practices. The study also revealed that the environmental expertise of directors has a positive significant effect on ESG practices. Board activity revealed a negative significant effect on ESG practices of listed non-financial firms in Nigeria. The study recommends that government in collaboration with Security and Exchange Commission (SEC) should come up with a policy that will mandate public companies to provide a seat for women with accounting and finance qualification in the board, give them responsibilities in the area of finance, and control related matter. SEC should also consider directors with environmental knowledge when designing or amending the provision of the code. On the other hand, less attention should be given to meeting attendance, as it reduces EGS practices of listed non-financial firms in Nigeria.

Keywords: **Female Director's Qualification, Environmental Expert Directors, Board Activity, Environmental Social Governance**

1. Introduction

The growing argument against focusing completely on investor's value turned out to be a burning issue and a major cause of concern to stakeholders. This is even more an issue where the financial statement does not adequately capture extra financial information (Galbreath, 2013). This raises the issue of firms' accountability to stakeholders. Therefore, there is the

need for social and environmental accountability in order to maintain a positive relationship with key stakeholders. Besides, board capability, ethical behavior, and environmental responsibility was intensively taken into consideration by some stakeholder group after the environmental and social failure of some multinational companies (BP Oil Spill in 2010 (Nasar & Martin, 2012); Volkswagen Emission Scandal in 2015 (Bojan & Anas, 2016); and Shell-Eni Nigeria in 2018(Amnesty International, 2020). Those mass obliterations in the corporate world led the companies to create an avenue of providing relevant information to capital providers and other stakeholders.

In developed economy, there are several enactments introduced to urge organizations to practice environmental and social friendly strategies and to make related disclosures. For instance, in the United States, 'The National Environment Policy Act 1970'; the 'Energy Policy Act 2005'; the 'American Recovery and Reinvestment Act 2009' and a provision in the 'Sarbanes Oxley Act 2002'that expect organizations to consider eco-social issues, such as by calculating environmental costs and other disclosures (De Villiers, Naiker & Staden, 2011).

In Nigeria, the code of corporate governance 2018 Stated that companies should pay adequate attention to the interests of their stakeholders such as their employees, host community, consumers, and the general public. Furthermore, Part E section 26.2 of the corporate governance code assert that the board of directors should establish policies and practices regarding its environmental, social and governance policies and practice. Based on the latter, investigating the extent to which female director qualification, environmental expertise, and board activity affect environmental social governance (ESG) practices becomes necessary within the context of listed non-financial firms in Nigeria. This is because the board's responsibility is to protect the corporate stakeholder interest. The various interest between stakeholder requires ethical obligations of the board of directors, which is embodied in the qualification and expertise (Howton, Howton & McWilliams, 2008; Mahmood, Kouser, Ali, Ahmad & Salman, 2018). The boards connect the investors with the managers, as well as the enterprise with the wider community in which it operates; they have to balance the demands of various interested parties. Also, boards of directors need specific capabilities to fulfill their tasks of governing strategy, to integrate, build, and reconfigure their resources and competencies (Eisenhardt & Martin, 2000). Board activities can be directed to balance the financial incentives and incentives to support responsible behavior because the more balance incentives will reduce conflict and allow a better focus on long-term value creation (MacKenzie, 2007).

However, the literature presents mixed findings on the relationship

between board characteristics and ESG practices outside Nigeria. Whereas some document a significant positive relationship between board characteristics (board size, diversity, foreign directors) and ESG performance (Valentino & Nicola, 2019), others find a significant negative relationship between board directors attributes and non-financial performance (Stevanus, Silvia & Jeremy, 2018; Adriana, Rares & Lucia, 2020). In general, the conflicting results documented by the prior studies could be attributed to a number of factors such as environment, methodological and measurement issues.

Since the results of previous studies in developed nations and some parts of developing countries on the influence of board capabilities on environmental, social and governance practices are mixed, therefore there is the need to carry out more studies on this linkage in developing countries, specifically in Nigeria.

Also, this study contributes to knowledge by providing more insight to the existing literature and fills the gap on the influence of board capabilities on environmental, social, and governance practices in Nigeria. This study therefore examines the effects of female directors' qualifications, environmental expertise, and board activity as proxies for board capabilities on environmental, social and governance practices of listed non-financial firms in Nigeria.

2. Literature Review

2.1 Conceptual Review

2.1.1 Female Director Qualifications

As a group, a board of directors combines a mixture of skills and capabilities that collectively represent a pool of social capital and adds value in executing the board's governance function (Carpenter & Westphal, 2015). Qualifications of different board members are significant for decision-making. For instance, the monitoring role can be effectively implemented if the board members are qualified and experienced. From the resource dependency viewpoint, qualified and skillful board members can be considered as strategic resources to provide a strategic linkage to different external resources (Ingley & van der Walt, 2015).

Directors tend to hold the view that female directors should have appropriate skills (Creary, McDonnell, Ghai & Scruggs, 2019). Similarly, CEOs argue that for the female directors' inclusion to be an effective mechanism, they need to possess financial expertise. Further, there are now a greater number of females with educational qualifications, and also current female directors on the boards may possess more ability due to their

appointment as directors (Singh, Terjesen & Vinnicombe, 2008). These arguments suggest that female directors' effectiveness on board is likely to be driven by particular characteristics possessed by them. More so, educational qualifications particularly in the area of accounting and finance are included in the index for evaluating corporations' adherence to corporate governance.

2.1.2 Environmental Expert Directors

Recent works on the functions on corporate boards highlight the importance of the advisory role, specifically when directors have relevant expertise and when the regulatory environment is complex. Dass et al. (2014) shows that firms benefit from appointing directors with specific experience of working in related industries. Another area where firms can benefit from the specific expertise of the directors is environmental sustainability. This is due to various aspects of environmental issues: the complexity and the number of environmental regulations, the extent of capital expenditures that implementing environmental practices may involve their long-term impacts, etc. Firms engaging in substantive ethical practices may seek to appoint a director with environmental resources. Environmental expert directors with specific human capital are in a better position to offer council on environmental issues and provide better resource access to firms. They are more likely to bring to light the elements of environmental management that are the most critical and the most suitable for the firm than a director without this expertise. However, firms may incur search cost to appoint Environmental Expert Directors, and appointing Environmental Expert Directors may keep out directors with other specific skills which are valuable to the firm.

2.1.3 Board Activity

The level of activity of a company board is a factor in how corporate directors conduct their duties. The consequence is that the activity of directors on the corporate board may influence the ability of the board to monitor and assess management practices and procedures. Therefore, an adequate frequency of board meeting attendance is necessary for directors to make effective decisions. At board meetings, directors discuss the company's environmental, social disclosure, and stakeholder engagement strategies (Herremans, Nazari & Mahmoudian, 2016). With more interaction through board meetings, directors would better monitor the requests and address the needs of stakeholders to secure legitimacy. Therefore, it is expected that an improvement in the likelihood and quality of ESG reporting as the number of board meetings increases.

In Nigeria, the Nigerian Code of Corporate Governance (2018) Part A principle 10, made a pronouncement on the significance of board time capability in enhancing the effectiveness of board functions. Accordingly, the code stipulates that the corporate board should meet at least once every quarter. The board should also disclose the number of board meetings held within the year and the detailed attendance of each director in respect of meetings held. The code specifically requires companies to hold at least four board meetings in a year, once every quarter.

2.1.4 ESG Practices

ESG practices refer to additional financial material information about the challenges and performance of a company on these matters. It, therefore, delivers additional relevant information, allowing more distinguished investment judgments by enabling investors to better assess risks and opportunities (Bassen & Kovacs, 2008). Similarly, ESG practices aim to capture other scopes of company performance, which are not revealed in accounting information. They argued that company financial reports lack the dimensions to inform management and investors about the value of reputation, quality, brand equity, safety, workplace culture, strategies, know-how, and a host of other assets that are more noteworthy than ever in a knowledge-based global economy. Therefore, ESG indicators catch a wider scope of non-financial information on environmental, social, and governance performance as well as to support risk management (Galbreath, 2013).

More so, Investopedia (2017) defined environmental, social, and governance (ESG) practices as a set of criteria for a company's operations that socially mindful investors use to screen potential investments. Moreover, environmental criteria consider how a firm performs as an overseer of nature. Social criteria examine how it manages relationships with employees, suppliers, customers, and the communities where it operates. Governance deals with a company's leadership, executive pay audits, internal controls, and shareholder rights.

2.2 Theoretical Framework

2.2.1 Resource-based Theory

The framework of this study is based on the resourced based theory propounded by Warnerfelt (1984). Resource dependence theory provides a view that the organization seeks to control external environment by choosing the resources needed to survive (Pfeffer & Salancik (1978) quoted from Osemeke, 2012). In line with this argument, Lynall et al. (2003) stated that company is an open system that is influenced by external environment to be

able survive and boards have important role in establishing the relationship between the company and its environment. Also corporate boards are part of set resources that can bring knowledge, experience, ideas and professional relationship which provide resources for corporate diversity (Carpenter et. al., 2004). Another argument reveals that a set of experiences boards is able to bridge the connection between corporate relationships with external parties and larger society (Selsky& Parker, 2010; Conner & Prahalad, 1996) as well as strengthening company relationship with its stakeholders and other external environment in maintaining corporate sustainability.

Resource based theory rests on two fundamental assumptions. The first assumption is that the board of directors offers essential and crucial resources which include business contacts and contracts, knowledge, experience and expertise couple with monitoring role that they perform which improves the financial performance and wealth maximization of shareholder (Hillman &Dalzel, 2003). The second assumption is that the board of directors has the ability to protect the interests of heterogeneous stakeholders who include local communities, government, employees, suppliers, customers, creditors, regulators and policy-makers. Thus, the board of directors can help the firm to achieve competitive advantage by serving as a direct link between the firm and the environment within which it operates (Chen & Roberts, 2010).

2.3 Empirical Review

2.3.1 Female Directors Qualifications and ESG Disclosure

Nadeem, Zaman and Saleem (2017) examine the impact of Boardroom gender diversity on corporate sustainability practices: Evidence from Australian Securities Exchange listed firms. This paper expands its research by using a third party sustainability rating of Environmental, Social and Governance (ESG) scores from the Bloomberg database. Boardroom gender diversity measured thefemale directors qualifications in the boardroom. The study applied a well-developed dynamic panel generalized method of moments (GMM) estimator on a sample of all Australian Securities Exchange (ASX) listed firms over the period of 2010-2014. The study findings reveal a significant positive relationship between women's qualifications on boards and corporate sustainability practices.

Nicola, Salvatore and Beatrice (2018) examine the effect of diversity of the board of directors and environmental, social governance (ESG) of listed companies in Italy. Diversity of BoD in terms of gender diversity qualifications is examined as to their influence on voluntary ESG disclosure. The data set includes ESG data for more than 54 Italian companies for the

period 2011–2014. The results indicate that firm's CSR disclosure is associated with Women qualifications on BoDs are negatively correlated. Based on this study, shareholders and policymakers will have a deeper knowledge on the significant roles that board diversity is playing as a determinant of ESG disclosure.

Anazonwu, Egbunike and Gunardi (2018) examine the effect of Corporate Board Diversity on Sustainability Reporting of Selected Listed Manufacturing Firms in Nigeria. The study adopts a panel research design. The population of the study comprised quoted manufacturing companies on the Nigerian Stock Exchange. This was restricted to companies classified under conglomerates, consumer goods, and, industrial goods sector. Fixed effects panel regression analysis was used to test the hypotheses. The dependent variable sustainability reporting was measured using an Economic, Social, and Governance (ESG) index, the independent variables was proportion of qualified women directors. The results show a significant positive effect of proportion of qualified women directors.

Aida, Zuria, Fadzlina, Faizah and Colin (2019) examine the relationship between board capabilities and ESG practices in Malaysia. ESG practices as dependent variables, board capabilities as independent variables. A board capability is proxy using Board diversity. ESG practices among the companies that had been selected, was evaluated by using the metrics that were categorized in three groups: environmental, social and governance metrics. The study utilized regression analysis. Collection of information and data was from company's listed in FTSE4Good Bursa Malaysia from the year 2012 to 2016. The results from the regression analysis show that ESG practices have a significant relationship with board diversity.

2.3.2 Environmental Expertise of Directors and ESG Disclosure

Ofuegbu, Oduemelam and Okafor (2018) investigated the influence of corporate governance using environmental committee/expert on environmental disclosure of nonfinancial firms listed in Nigeria Stock Exchange. Content analysis approach was used, and the source of secondary data was 2015 annual report of the sampled companies. 86 firm-year observations across 86 companies listed in Nigeria Stock Exchange (NSE) using content analysis, cross-sectional data, and OLS regression techniques were used. The results show that environmental committee/expert was statistically significant. The findings indicate that the level of environmental disclosure of nonfinancial companies in Nigeria is quite insufficient at an average of 10.5 percent. The study provides evidence that the level of corporate environmental disclosure in Nigeria is shallow.

Swarnodeep and Aurelie (2019) examined the effect of board expertise and networked boards on environmental Performance of listed UK firms over the period 2006–2014. Regression was used as a technique of data analysis. Findings indicate that environmental expertise of director's positively and significantly environmental performance.

Umukoro,Uwuigbe, Adegboye, Ajetunmobi and Nwaze (2019) examined the effect of board expertise on the sustainability reporting disclosure of listed deposit money banks in Nigeria. Board expertise was proxies using environmental expert. Environmental expert was measured using the total number of board members with experience in environmental issues. Based on the static panel data regression estimators for 10 Nigerian Deposit Money Banks from 2014 to 2016, the study found out that environmental expert has a positive but insignificant effect on the sustainability report disclosure.

Bryan and Jose (2019) examined the effect of board structure on Environmental, Social and Governance (ESG) disclosure in Latin America. The Bloomberg "ESG Disclosure Score" represents the number of efforts and practices for which firms disclose environmental, social and governance information. CSR/Sustainability Committee (CSRC) indicates whether the company has a corporate social responsibility/sustainability (or equivalent) committee that reports directly to the board. This is a binary variable collected from the Bloomberg database. The study tested the hypothesis with data collected from the Bloomberg database of a sample of 134 companies for 2014 using Regression model. The study found that CSR committee have a positive effect on ESG disclosure.

Fahad and Rahman (2020) examined the impact of corporate governance on CSR disclosure practices of Indian companies. The study used Bloomberg ESG score to measure the CSR disclosure. CSR/Sustainability Committee (CSRC) indicates whether the company has a corporate social responsibility/sustainability (or equivalent) committee that reports directly to the board. The sample consists of 386 companies listed in the BSE 500 index for a period of 10 years from 2007-2016 and panel data regression was used for the analysis. The study found that corporate governance variable of sustainability committee improves CSR disclosure.

2.3.3 Board Activity and ESG Disclosure

Grigoris (2014) investigated the potential effects of corporate governance and financial characteristics on the extent of corporate social responsibility (CSR) disclosure focusing on the US companies. The environmental, social and governance (ESG) disclosure score calculated by

Bloomberg is used as a proxy for the extent of CSR disclosure while board meetings is used as proxy for corporate governance. The sample consists of 366 companies from the Fortune 500 list for 2011. Multiple regression analysis was used to investigate the effect of board size on CSR disclosure. The Results show that board meetings are insignificant and negatively related to the extent of CSR disclosure. The number of board meetings seems not to be a substantial factor so as to explain the extent of CSR disclosure

Mohammad (2017) carries out a study on the Influence of Board Composition on Sustainable Development using (ESG) disclosure of UK firms. Bloomberg provides the weighted CSR score based on the level and type of social, environmental and governance information a firm discloses while BM, board meetings, is the number of board meetings per year. The study adopted a sample of FTSE 350 firms for the period 2007–2012 using time series fixed effect, industry fixed effect, and year and industry fixed effect. The results show that frequency of board meetings are positively and significantly related to ESG disclosure.

Valentino and Nicola (2019) analysed the influence of corporate governance on Environmental, Social and Governance (ESG) Disclosure. Corporate governance was measured using the number of meetings on ESG Disclosure The study apply a meta-analytical review to a sample of 24 empirical studies to clarify the relationship between the number of board meeting with ESG Disclosure. The results show that number of board meetings has an insignificant effect on ESG Voluntary disclosure.

Otuya, Akporien and Ofeimun (2019) investigated the influence of companies' governance process on sustainability reporting in Nigeria. Board activity was measured as the number of times board of directors held meetings in a financial year. The study adopted the ex post facto research design and used content analysis of corporate financial statements and a modified checklist based on SEC (2018) Sustainability Reporting Guidelines to examine the level of disclosures by sampled firms for the period 2016 to 2018. Findings of the study from regression analysis revealed that board activity have positive but insignificant association with level of sustainability reporting in Nigeria.

3. Methodology

The study adopted Ex post facto research design. Ex post facto research design helps in examining possible causes and effect relationships by first identifying some existing phenomena and then analyzes data to establish possible causal factors. The population of the study consists of 116 non-financial companies quoted on the Nigerian Stock Exchange (NSE) as at 31st

December, 2019, in the Agriculture, Conglomerate, Consumer goods, Industrial goods, Healthcare, technology, real estate and construction, Oil and Gas, Services sectors and Natural resources.

The study employed stratified and simple random sampling techniques in selecting the sample of the study. The stratified sampling method was used because of the distinct nature of the study population. While simple random sampling gives each unit of the population an equal opportunity of inclusion in the sample.

This initial sample size is supported by Yamane (1967) sample selection method (Guilford & Frucher, 1973) as stated below:
According to Yamane (1967),

$n = N / [1 + (Ne2)]$, ---1

Where: "n" is the sample size,
"N" is the population,
"e" is the error limit (5% precision level was used for the purpose of this study)

Therefore, $n = 116 / [1 + 116 (0.052)]$

$n = 116/1.29$

$n = 90$

Adjusted Yamane (1967), $n1 = n/1 + (n - 1)/N$

Therefore, $n1 = 90/1 + (90 - 1)/116$

$n1 = 90/1.77$

$n1 = 51$

Based on the above calculation, the sample size of 51 with error limit of 5% is considered appropriate for this study. The propose samples from each of the sector for the study will determine through the use of proportional sampling technique as thus:

Table 1 : Population and Sample Size of the Study

S/N	Sector	Number of firms	Computation	Number of firm selected
1	Agriculture	5	5/116*51	2
2	Conglomerate	6	6/116*51	3
3	Consumer goods	23	23/116*51	10
4	Industrial goods	13	13/116*51	6
5	Healthcare	10	10/116*51	4
6	Technology	9	9/116*51	3
7	Real estate &construction	9	9/116*51	3
8	Oil and Gas	12	12/116*51	5
9	Services	25	25/116*51	11
10	Natural resources	4	4/116*51	1
Total		116		48

Source: Researcher computation, 2021

3.1 Model Specification

The model used Environmental Social and Governance practices as the dependent variable and three independent variables, which includes Female Director Qualification, Environmental Expertise's of Directors and Board Activity. The study used Generalized Least Regression (GLS) technique to examine the effect of board capabilities on ESG practices using STATA 15 as a tool of data analysis. The preference of Generalised Least Square regression over pooled Ordinary Least Square regression is due to the important assumptions of homoskedasticity and no serial correlation in Pooled Ordinary Least Square (Wooldridge, 2002). Data were then analyzed using Generalized Least Regression (GLS) technique based on the following model.

$$ESGP = f(FDQ, EED, GA, ROA) \ldots\ldots 2$$
$$ESGPit = \beta 0 + \beta 1FDQit + \beta 2EEDit + \beta 3BAit + \beta 4ROAit + \mu it \ldots\ldots 3$$

Table 2: Variables Measurement

Variables	Type	Measurement	Source
ESG practices (ESGP)	Dependent	ESG disclosure index	Giuliana, Stefano, Antonia and Marco (2018)
female director qualification (FDQ)	Independent	Proportion of female directors with degree in accounting and finance, and another professional certificate.	Anazonwu, Egbunike and Gunardi (2018)
board environmental expert(EED)	Independent	1 if there is environmental expert in the company, 0 otherwise.	Kallamu, 2015)
board meeting attendance (BA)	Independent	Percentage of board meetings attended by a director him/herself	Mohammad (2017)
Profitability (ROA)	Control	EBIT divided total asset	Yusoff and Lehman (2005)
β1to β4		coefficient of slop or regression coefficient	
ε		error term	

Source: Author's Compilation, 2021

Table 3: ESG Categories

Pillar	Categories	Indicators in scoring	Percentage (%)
Environment	Resource Use	20	11
	Emissions	22	12
	Innovation	19	11
Social	Workforce	29	16
	Human Rights	8	4.5
	Community	14	8
	Product Responsibility	12	7
Governance	Management	34	19
	Shareholders	12	7
	CSR Strategy	8	4.5
Total		178	100

Source: Asset 4 Thomson Reuters Data Score (2019)

Therefore, the final ESG rating will be calculated mathematically as:

$$ESGI = \sum \frac{EnvP\ ,SocP\ ,GovnP}{N} \quad \ldots\ldots 4$$

Where;
ESGI: ESG Disclosure Index
EnvP, SocP, GovnP = Sum of three scores
N= Total number of scores

A review of prior studies has resulted to the following testable null hypotheses
$H_0 1$: Female director's qualification has no significant effect on ESG practices of listed non-financial firms in Nigeria
$H_0 2$: Environmental Expert Directors has no significant effect on ESG practices of listed non-financial firms in Nigeria
$H_0 3$: board activity has no significant effect on ESG practices of listed non-financial firms in Nigeria

4. Results and Discussion

The various descriptive statistics are displayed in table 1 below. The essence of the table is to provide an understanding of the nature of data being used.

Table 4: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
ESG	.3648962	.1930764	.0171823	.834143
FDQ	.0746364	.0568162	0	.1818182
EED	.03125	.1745389	0	1
BA	2.43125	.894581	1	4
PROF	.3020525	.2332101	-.2239673	.891987

Source: STATA Output, 2021

Source: STATA Output, 2021

Table 4 shows the descriptive statistics of the variables in the model. The mean for ESG practice is .3648962 which indicates an average 37% of ESG practices of the sampled non-financial firms during the period. The standard deviation of .1930764 indicates a substantial dispersion from the average value. The minimum and maximum level of ESG practices is 2% and 83 % respectively. The female director qualification (FDQ) is measured by the proportion of female directors with degree in accounting and finance, and another professional certificate. From the table, the FDQ has a mean of .07%, a minimum of 0 and a maximum of .18%. This indicates that in each female director on the board of the sampled companies has at least one board member with qualification in accounting and/or finance.

Moreover, the table indicated a mean value of .03125 for environmental expertise directors (EEDs). This value shows that only 3% of the sampled companies had expertise in social and environmental knowledge. The minimum and maximum values of EED during the study period were zero (0) and 1 respectively. The return on asset (ROA) is used as a control variable. The ROA has a mean of .3020525 with a standard deviation of .2332101, a minimum of -.2239673 and a maximum of .891987 respectively.

Table 5: Correlation Matrix

Variable	ESG	FDQ	EED	BA	PROF
ESG	1.0000				
FDQ	0.0246	1.0000			
EED	0.1618	0.1336	1.0000		
BA	-0.1868	0.0344	0.0063	1.0000	
PROF	0.1282	0.1770	-0.0600	0.1393	1.0000

Source: STA TA Output, 2021

From the correlation matrix above, it can be explained that FDQ, EED and ROA are positively correlated with ESG practice of listed non-financial firms in Nigeria. The implication is that the above variables move in the same direction with the ESG practice of the sampled firms in Nigeria. On the other hand, BA negatively correlated with ESG practice, implying that they move in opposite direction with ESG.

Table 6: Tolerance and VIF values

Variable	VIF	1/VIF
FDQ	1.06	0.947707
EED	1.03	0.974912
BA	1.02	0.980504
PROF	1.06	0.944034
Mean VIF	1.04	

Source: STATA Output, 2021

Based on the evidence presented in Table 6, it can be concluded that there is no multicollinearity problem. This is because the VIF values for all the variables are less than 10 and the tolerance values for all the variables are greater than 0.10 (rule of thumb).

Table 7: Heteroskedasticity and Hausman Specification Test

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity Ho: Constant variance Variables: fitted values of esg chi2(1) = 0.02	Prob> chi2 = 0.8785
Hausman Specification test chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 30.3	0.003

Source: STATA Output, 2021

The Breusch-Pagan test for heteroskedasticity reveals the chi-square value of 0.02 insignificant at 5% level of significant. This indicates the absence of heteroskedasticity in the data. Hausman specification test considered fixed effect (within) regression as the appropriate estimator of parameters on the basis that fixed effect correlated with the variables as the Hausman test is statistically significant at 1%. This can be confirmed from the chi-square value of 30.3 and a probability value of 0.003. Therefore, Hausman test indicated that the fixed effect (within) regression is the preferred model that should be used.

Table 8: Regression Results

	Coef.	Std. Err.	z-value	P>|t|
FDQ	.0810874	.2703887	0.30	0.765
EED	.1752512	.0867806	2.02	0.045
BA	-.0372113	.0168831	-2.20	0.029
PROF	-.0749186	.0660019	-1.14	0.258
R-squared =0.273				
Wald chi2 53.72				0.0001

Source: STATA Output, 2021

In table 8, it can be observed that the R^2 is 0.273 which means that 27% of the variation in ESG practice of non-financial firms in Nigeria is explained jointly by the independent variables captured in the model. The wald-chi2 is 53.72 which is significant at 5%. This is indicative of the fitness of the model. The results in table 8 show that the beta coefficient of FDQ is .0810874 which is insignificant at 5 % level. This implies that a 1% change in FDQ will change ESG practices of non-financial firms by 8%. The Z-value of FDQ is 0.30 while its p-value is 0.765 which is not significant. This means that although female director's qualification positively affects ESG practices of nonfinancial firms in Nigeria, the influence is not significant. Therefore, the first null hypothesis is accepted. This finding is consistent with the finding of Nadeem, Zaman, Saleem (2017); Giuliana, Stefano, Antonia and Marco (2018) but contradicted the findings of Nicola, Salvatore and Beatrice (2018).

Similarly, the coefficient of EED is .1752512. This suggests that EED has a positive coefficient with ESG of non-financial firms in Nigeria. A unit increase in EED will lead to a corresponding increase in ESG by 18%. This supports the understanding that the board environmental expertise increases the ability of directors to manage stakeholder relations which in turn leads to superior ESG performance. The Z-value of EED is 2.02, with a p-value of 0.045 which is significant at 5%. This provides evidence against the second hypothesis of the study. This finding is in support of the finding of Oduemelam and Okafor (2018); Swarnodeep and Aurelie (2019).

The coefficient of BA is -.0372113, indicating that there is negative relationship between BA and ESG practice of listed non-financial firms in Nigeria. This means that a unit increase in board activity will lead to a decrease in ESG practices of non-financial firms by 3%. The Z-value of BA is -2.20 while its p-value of 0.029 which is significant at 5%. Based on this

evidence, the third null hypothesis of the study is rejected. This finding do not supports with the finding of Grigoris (2014).

5. Conclusion and Recommendations

In this study, the relations between female director qualification, environmental expertise of director, board activity, and environmental, social, and governance practices were examined. The examination also provides evidence of the positive insignificant effect of female director qualification on ESG practices of listed non-financial firms in Nigeria. The study concludes that the higher the qualifications of female director the higher the ESG practice. In addition, the environmental expertise of directors has a positive significant effect on ESG practice. The study concludes that the presence of environmental expertise on the board is associated with ESG practice. While board activity has a negative significant effect on ESG practices of listed non-financial firms in Nigeria. The study concludes that board activity decreases ESG practices of listed non-financial firms in Nigeria.

In line with the findings of this study, it is recommended that the Government in collaboration with Security and Exchange Commission (SEC) should come up with a policy that will mandate public companies to provide a seat for women with accounting and finance qualification, give them responsibilities in the area of finance, and control related matters. Also, SEC should consider directors with environmental knowledge when designing or amending the provision of the code. Less attention should be given to meeting attendance, as it reduces ESG practices of listed non-financial firms in Nigeria.

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