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# Board Expertise and Sustainability Reporting in Listed Banks in Nigeria

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**Abstract:** Despite the growing evidence on the determinants of sustainability reporting, there exist limited and inconclusive studies on the impact of board expertise on sustainability reporting. This study investigates the influence of environmentally sensitive, certified or educated board members on the disclosure of sustainability report. Based on the static panel data regression estimators for 10 Nigerian Deposit Money Banks over the period of 2014-2016, the study revealed that highly educated directors have an altogether constructive influence on the sustainability report disclosure while controlling for corporate administration and firm-level qualities. In addition, we find that the executive and non-executive directors have low experience in environmental issues resulting in an insignificant effect on the disclosure of sustainability reporting. This paper suggests that firms should allow more directors with environmental background, who have a lower motivation to boost transient returns since they are likely to influence environmental performance.

## 1. Introduction

The sole aim of every profit-making organisation is to continue to make a profit and meet the needs of all her stakeholders, it, therefore, has become very pertinent for management to engage in practices and corporate strategies that would aid the fulfilment of her going concern objective. In the light of recent global happenings, various international organisations and companies seeking to belong to that global space are gradually conforming to the needs of stakeholders and global organizations by carrying out their operations in such a way that transparency and sustainability are evident from their reports and activities.

According to [15], "A sustainability report is a tale disseminated by a firm about the environmental, economic and societal effects brought about by its ordinary exercises. A sustainability report also shows the firm's qualities and management model and exhibits the connection between its procedure and its duty to an economical world view". This simply means a sustainability report must be in alignment with the vision and strategic plans of a given organisation [16].

The results from previous researches on the subject matter remain inconclusive as [3] are of the opinion that sustainability reporting instigate no critical influence on the arrival of benefit of Listed firms in Nigeria while [11] uncovered that there exist critical adverse connection between Environmental Accounting and ROCE and EPS while a critical progressive connection between Environmental Accounting and Net Profit Margin and Dividend per Share.



The inconclusive nature of the results obtained by prior studies [4; 11 and 15] has given rise to this study. Sustainability reporting has become a necessity in every country and sector, this is major because researches such as [15] have empirically averred there exists a progressive relationship between sustainability reporting and revenue generation in listed banks In Nigeria. The CBN in the year 2012 released nine sustainability banking principles to guide listed banks in maintaining sustainable practice, the principles cover a holistic approach to ensuring that all humans are treated fairly, rural areas and women are not left behind in banking operations and services, they are also to ensure that banks do not negatively affect the environment through their operations, they are also to encourage collaborative partnership and ensure their financial reports encapsulate their sustainability practice.

Although some prior researches [11; 14; 12] statistically proves that Sustainability reporting is a necessary tool in revenue generation, return on assets and company performance, the studies did not empirically ascertain if there's any relationship or effect between board magnitude, board independence, board members knowledge of sustainability reporting, qualifications of the board, directors level of education board magnitude on sustainability reporting. It is therefore important to examine other factors that would aid the strict adherence to the CBN sustainability guidelines.

Corporate administration has been characterized by various people as ways and methods of how a given organisation is directed and controlled. The board members of a given organisation have been entrusted with the sole aim of ensuring a given organisation is ethically acting in the shareholders' interest, they also monitor the progress of the organisation hence it is therefore important to examine if the expertise of board members have any huge impact on sustainability reporting in listed banks in Nigeria.

This paper is composed in the accompanying sections. Section 2 provides a review of prior and hypothesis development. Section 3 deals with the research methodology adopted and data gathering procedures. Section 4 describes the data and discusses the empirical findings while section 5 reports the final conclusions and suggestions.

## **2. Review of Prior Studies**

[2] utilized a bi-directional methodology and found a progressive and bi-directional connection between supportability procedures and firm execution. Their sample size was limited to developed countries, their scores were centred on 4 Indices Diversity, Environment, Ethics and Community proxied for sustainability reporting and Return on assets for performance of firm for time- frame 2006-2010. Similarly, [14] in his investigation inspected the effect of sustainability reporting about firm execution in Nigeria. The researcher's sample size was limited to 64 corporations stated on the NSE for the time frame 2002-2012. He statistically obtained an ever-increasing relationship between sustainability reporting and Profit for Assets, ROE, Earnings per offer and net overall revenue. [1] measured company performance using proxies such as MBV, size of the firm and Return on Capital Employed (ROCE). The sample size utilised for the study was 500 UK firms and the study statistically concluded that an impactful ever increasing relationship exists between giving back to the society, MBV and ROCE.

[3] result reveal that performance of economic disclosures do not citically influence the return on assets of Nigerian listed corporations and this contradicts previous results stated above. Similarly, [5] examined if directors from related industries (DRIs) on a company's board help sustainability reporting and bridge information gap. The study concluded that DRIs have a significant impact on firm value. In the same vein, [8] studied the role of board ability in ecological issues (estimated by the nearness of non-official chiefs with past involvement in natural issues, EEDs) and executive systems on GHG outflows. They utilized the utilization of emanation information of FTSE 350, they measurably presumed that the nearness of EEDs on the board decreases GHG discharges and board individuals with better-arranged executives have better ecological execution.

[12] analysed the effect of diversity of board resource on firm reputation. board members were separated into groups such as business specialists, bolster pros, political directors and other network

persuasive, with an end goal to explore whether business, specialized ability or political ties in the meeting room influence partners' conclusion and, in this way, firm notoriety. This investigation affirms that not every outside executive is similarly compelling in enhancing firm notoriety and that particular sorts of independent directors, particularly business specialists, help increment it.

## 2.1 Hypothesis Development

Following the study background, we stipulate the study alternative hypotheses below.

H<sub>1</sub>: There exists significant association between executive directors' expertise and sustainability reporting.

H<sub>2</sub>: There exists significant relationship between non-executive directors' expertise and sustainability reporting.

H<sub>3</sub>: There exists significant association between directors' education and sustainability reporting.

## 3. Data and Method

### 3.1 Methodology

To test our postulated hypotheses, we adopt a convenient sampling technique to draw the appropriate sample size for this study. Convenient sampling technique is useful to select appropriate samples following the availability level of the desired data [7]. We draw 10 banks from 15 banks listed on the Nigerian Stock Exchange after the filtering criteria was adopted. We then drop banks with insufficient variables desired for this study. In addition, the desired variables are hand-collected from financial statement and the corporate governance section of the firms webpage. We consider 3 years from 2014-2016 because the banks have fully implemented and disclosed all reports on Sustainability Reporting with the directives of the Nigerian Stock Exchange Commission.

We identify the disclosure of sustainability report as the dependent variable. The proxy for sustainability report disclosure was adapted from prior literature such as [10]; [13]. The measure is patterned according to the Global Reporting Initiative framework subjected to three categories such as i) Economic Indicators ii) Environmental Indicators and iii) Social Indicators. We use content analysis to derive the disclosure score by the selected banks to construct the disclosure index. The overall disclosure score (TDS) for sustainability indices is generated as follows:

$$TSD_i = \sum_{s=1}^N d_s \text{ While the Sustainability Reporting Disclosure (SRD)} = TSD_i/M$$

Where;

$d_s = 2$  for full disclosure,  $1$  for partial disclosure and  $0$  for no disclosure against economic, environmental and social indicators respectively.

$N=9$  for the economic indicator  $i$

$N=30$  for the environmental indicator  $i$

$N=45$  for the social indicator  $i$

$M=$ Maximum possible score of 168

We then identify three basic independent variables representing the level of the directorship expertise relating to environmental issues. Following the work [6], we explore the profile of individual directors on the board to indicate the level of directors' experience in environmental sustainability. However [6] only explore the experience of non-executive directors in environmental issue. We then explore both the experience of executive and non-executive directors in sustainability issues in a Nigerian bank. In addition, we assume that higher educated directors will be more knowledgeable in

the areas of environmental issues. Therefore, we include the number of higher educated directors in the study model.

Consequently, we further include other variables that comprise the corporate governance mechanisms and firm characteristics to control for perplexing features. We include board magnitude, board independence and board composition to the difference in individual banks corporate governance structure. We control for firm size as it could affect the environmental engagement of the banks. In addition, we control for the TobinQ and the return on equity (*ROE*) for market valuation modelling.

### 3.2 Model Specification

We use OLS regression with company and year controls to test the effect of board expertise on the sustainability reporting. Pooled regression model always discards the panel data structure by basically pooling collectively data on the units (Kunst, 2010). Thus, the unit difference that arises due to the resultant of the different coefficient is usually ignored. The coefficient time and unit subscript are assumed to be common, which eliminate any possibility of individual heterogeneity.

The model is expressed in explicit form as follow

$$SRD_{it} = \beta_0 + \beta_1 Ede_{it} + \beta_2 Nede_{it} + \beta_3 EDU_{it} + \beta_4 \sum others_{it}$$

All variables included in the model are clearly explained in Table 1.

**Table 1**

Definition of Variables

<b>Variables</b>	<b>Definition</b>	<b>Measurement</b>
<b><i>Dependent Variable</i></b>		
<i>SRD</i>	Unweighted Sustainability Reporting Index	As explained earlier
<b><i>Independent Variable</i></b>		
<i>Ede</i>	Executive Directors' Expertise	The Total number of Executive Members with Experience in Environmental Issues
<i>Nede</i>	Non-executive Directors' Expertise	The Total number of Non-executive Members with Experience in Environmental Issues
<i>EDU</i>	Directors' Education Level	Number of Directors with Higher Education Certification such as M. Sc, M.Phil. or Ph. D
<b><i>Other Variables</i></b>		
<i>BM</i>	Board Magnitude	The total number of Board Members
<i>BIN</i>	Board Independence	The ratio of Independent Directors to Total Board Size
<i>BC</i>	Board Composition	The ratio of Non-executive Directors to Total Board Size
<i>TobinQ</i>	TobinQ	The book value of total assets minus the book values of equity plus the market value of equity all divided by the book value of total assets.
<i>ROE</i>	Return on Equity	Total profit for the year/ Total Equity
<i>Size</i>	Firm Size	Natural logarithm of Total Asset

## 4. Empirical Results

### 4.1 Descriptive Statistics

Table 2 reports the descriptive statistics of the study variables. From the Table, the mean of the sustainability report disclosure is 0.344 with a maximum of 0.62 and a minimum of 0.196. Therefore, the mean level of the Disclosure Index verifies that the majority of the banks possesses reasonable sustainability reporting.

In the case of the board environmental expertise, the minimum level of the executive directors with environmental issues is none revealing that some banks do not have executive directors with sustainability experience while the maximum number of the executive with environmental experience is 2 directors. On the other hand, there is a minimum of one person with environmental experience sitting as a non-executive director while the maximum number of such as directors in the Nigerian banks is 5 directors. In addition, it is indicated that between 3 to 9 directors possess Higher Education Certification such as M. Sc, M.Phil. or Ph. D.

**Table 2: Descriptive Statistics**

VARIABLES	Obs.	Mean	S. D	Min	Max
SRD	30	0.344	0.110	0.196	0.620
Ede	30	1.133	0.571	0	2
Nede	30	2.533	1.106	1	5
Educate	30	5.633	1.326	3	9
BM	30	15.07	2.947	7	19
BIN	30	0.128	0.0683	0	0.250
BC	30	0.650	0.114	0.500	0.917
TobinQ	30	0.970	0.0931	0.840	1.210
ROE	30	0.136	0.0734	0.0154	0.262
Lnasset	30	21.38	0.611	20.45	22.28

Table 3 reports the Pearson correlation matrix for the dependent variable and independent variables adopted in the analysis. The Table indicates low correlation among the variables, especially among the independent variable. Hence, there is no indication of serious multicollinearity in the models.

**Table 3: Correlation Matrix**

	1	2	3	4	5	6	7	8	9	10
1. SRD	1									
2. Ede	0.0121	1								
3. Nede	-0.235	0.702***	1							
4. Educate	0.0507	-0.0239	-0.144	1						
5. BM	-0.200	-0.149	-0.244	0.209	1					
6. BIN	0.638***	0.132	-0.0671	-0.210	-0.275	1				
7. BC	0.263	-0.0834	-0.0724	-0.0351	-0.103	0.00400	1			
8. TobinQ	-0.167	0.367*	0.489**	-0.240	-0.556**	0.151	-0.159	1		
9. ROE	-0.0576	0.312	0.315	-0.231	-0.157	0.0642	-0.178	0.685***	1	
10. Size	0.452*	-0.117	-0.271	0.214	-0.0180	0.499**	0.376*	-0.0342	0.185	1

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

## 4.2 Regression Results

Table 5 reports the Multiple Regression results of the consequence of members expertise on sustainability reporting for the selected banks. The R-squared value identifies the percentage of dependent variability explained by the independent variables in the regression model. The study R-squared basically for Model 4 is 0.658. Thus, the result reports 65.8% of the variability in Sustainability Reporting Disclosure is explained by the independent variables. In addition, F-test is 4.272 with the p-value of 0.003 which indicates a significant linear association between the explanatory variables that are the board environmental expertise and explained variable that is sustainability reporting disclosure.

**Table 4: Regression Results using OLS**

VARIABLES	1	2	3	4
Ede	-0.00962 (0.0291)			0.00761 (0.0388)
Nede		-0.0116 (0.0155)		-0.0142 (0.0209)
Ede * Nede			-0.00390 (0.00639)	
Educate	0.0259* (0.0141)	0.0257* (0.0134)	0.0254* (0.0135)	0.0249* (0.0143)
BM	-0.0116* (0.00658)	-0.0115* (0.00650)	-0.0114* (0.00654)	-0.0116* (0.00667)
BIN	1.333*** (0.324)	1.317*** (0.303)	1.327*** (0.307)	1.293*** (0.334)
BC	0.307* (0.163)	0.317* (0.160)	0.303* (0.159)	0.313* (0.166)
TobinQ	-0.788** (0.285)	-0.739** (0.291)	-0.739** (0.297)	-0.733** (0.300)
ROE	0.738** (0.351)	0.737** (0.337)	0.710** (0.336)	0.719* (0.357)
Lnasset	-0.0494 (0.0426)	-0.0534 (0.0411)	-0.0506 (0.0407)	-0.0514 (0.0432)
Constant	1.732* (0.888)	1.786* (0.861)	1.720* (0.852)	1.750* (0.900)
Observations	30	30	30	30
R-squared	0.650	0.657	0.654	0.658
Rmse	0.0762	0.0754	0.0758	0.0772
F-test	4.872	5.032	4.966	4.272
Prob > F	0.00168	0.00138	0.00150	0.00329

Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Under the hypothesis one, it is postulated to test whether there exists significant affiliation between Executive Expertise Directorship and Sustainability Reporting. Thus, the finding reveals that from Model 1 & 4 in Table 4 reports no significant association between executive directors' expertise and sustainability reporting at 5% level of significance and this is in tandem with [3]. This indicates that

the listed banks do not have sufficient executive directors with sustainability inclined. Hence, it is suggested that a sizeable number of executive directors with environmental experience are required.

Under hypothesis two, it is assumed to test whether there exists significant affiliation between non-executive directors' expertise and sustainability reporting. Thus, the finding reveals that from Model 2 & 4 in Table 4 reports that there is no significant adverse relationship between non-executive directors' expertise and sustainability reporting at 5% level of significance and this result is at variance with [8]; [12]. This suggests that there exists a deficient number of non-executive directors with environment experience that could enhance sustainability reporting. Thus, there is a necessity for more non-executive directors with environmental experience in the Nigerian banks to augment sustainability reporting.

Under hypothesis three, it is postulated to test whether there exists significant and positive affiliation between directors' education and sustainability reporting. Thus, the finding reveals that from Model 1-4 in Table 4 report that there exists significant positive relationship between directors' education and sustainability reporting at 5% level of significance. This designates that possession of higher education certifications tends to enhance the awareness of the board regarding sustainable banking practice. Thus, this study then advocates that listed banks should encourage their directors to possess higher education degree.

**Table 5: Regression Results using Logistics Analysis**

VARIABLES	1	2	3	4
Ede	-4.106 (2.576)			-3.609 (2.571)
Nede		-1.237 (1.058)		-0.689 (0.864)
Ede * Nede			-0.820* (0.492)	
Educate	2.223* (1.283)	1.157 (0.903)	1.760 (1.192)	2.236* (1.243)
BM	0.262 (0.554)	0.0843 (0.408)	0.312 (0.532)	0.353 (0.554)
BIN	73.23** (36.77)	41.77* (24.25)	63.60* (35.12)	75.91** (36.53)
BC	29.58 (18.55)	18.76 (14.76)	28.01 (20.16)	32.36* (18.89)
TobinQ	-30.18 (22.37)	-7.318 (15.09)	-19.28 (20.70)	-28.52 (22.32)
ROE	68.95* (38.98)	36.51 (25.38)	57.49 (38.29)	71.58* (38.72)
Lnasset	-5.115 (3.359)	-2.880 (2.664)	-4.500 (3.357)	-5.530* (3.325)
Constant	86.82 (66.43)	39.99 (45.66)	66.72 (60.05)	91.19 (64.36)
Observations	30	30	30	30
Pseudo R-squared	0.500	0.453	0.502	0.521
chi-squared	19.11	17.30	19.17	19.89
Prob > chi2	0.0143	0.0271	0.0140	0.0186

Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

#### 4.3 Robustness Check



To find the robustness of the study, we further extend our regression model by classifying the sustainability reporting to high and low quality. We then allocate a dummy variable that is 1 stand for any value greater than 0.5 signifying high-quality sustainability reporting and 0 stands for any value less than 0.5 representing low-quality sustainability reporting. Since the dependent variable is represented by the dummy variable, we then employ logistic analysis for the robustness check. From Table 6, these results confirm the robustness of the main test as the desired variables retain their results.

## 5. Discussion and Conclusion

This paper explores the effect of board expertise and level of director education on sustainability performance. Additionally, following the prior studies, we further include other variables that comprise the corporate governance mechanisms and firm characteristics to control for perplexing features. We proxy for sustainability performance using content analysis to derive the disclosure score by the selected banks to construct the disclosure index (i.e. 2 for full disclosure, 1 for partial disclosure and 0 for no disclosure against economic, environmental and social indicators respectively).

We use availability sampling technique to derive the study sample size of 10 out of 15 Nigerian banks for the period 2014-2016. We use OLS regression with company and year controls to test the effect of Board Expertise on the Sustainability Reporting. We find that the board expertise has no significant influence on sustainability reporting. However, we find that the educated directors possess the experience to influence sustainability practices of the banks.

Based on the results of this study, we then recommend that Nigerian Banks should adopt a structure that could enhance sustainability practices for the banks. Stressing on the level of directors' education could enhance effectiveness in term of information flow and it is expected to reflect the disparity within the society. Our results contribute to the increasing literature stressing the importance of board environmental and education practices in view of sustainability activities for the banks.

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