

## **Corporate Governance Mechanisms, Firm Size and Corporate Social Responsibilities among Deposit Money Banks in Nigeria**

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### **Abstract**

*Studies on the effect of Corporate Governance Mechanisms on Corporate Social Responsibilities (CSR) have produced confounding results. Thus, recent researchers have called for a different methodology and moderating variable. This study responded to this call by using the actual costs incurred on CSR activities instead of measuring disclosure like the previous studies. Moreover, the study introduced firm size as a moderating variable. The study examined the effect of corporate governance mechanisms comprising Board Size, Audit committee size and Gender diversity on CSR disaggregated into Education, Health and community development. Data were collected from audited annual reports of the 12 Deposit Money Banks listed on Nigerian Stock Exchange. Findings show that audit committee size significantly improve CSR spending on education and health, but it has an insignificant effect on community development. Board size and gender diversity have insignificant positive effect on CSR activities on education, health and community development. Gender diversity has the largest impact on CSR compared with board size and audit committee size. Furthermore, the study revealed that firm size insignificantly moderated the effect of audit committee size and board size on CSR activities on education and health.*

**Keywords:** *Corporate Social Responsibility; Audit Committee size; Board size; Gender Diversity; Firm size.*

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Date of Submission: 23-01-2021

Date of Acceptance: 07-02-2021

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### **I. Introduction**

Corporate Social Responsibility (CSR) has tremendously gained researchers attention. The increasing demands of the stakeholders from companies to include communities' environmental and social problem into their activities have drawn the attention of researchers. Also, the fact that companies are expected to be proactive in solving the needs of a different group of stakeholders, and accommodate their varying interest to gain image and reputation has increased the popularity of the concept among researchers (Abdulkadir & Alifiah, 2020). Corporate Social Responsibility is closely connected to corporate governance, and it is a supplement to financial accounting as it provides information on the economic, environmental and social performance of companies to their various stakeholders voluntarily (Velte, 2017).

Failure of the Board of Directors to manage social, environmental and economic issues simultaneously can have an immediate adverse effect in terms of loss of free fall of stock and loss of reputation and image (Gennari, 2019). The role of Board of Director on CSR disclosure cannot be overemphasized because CSR disclosure is the outcome of board's judgement, discretion and decision (Katmon, Mohamad, Norwani, & Farooque, 2019). Audit committee's oversight function on financial reporting could improve corporate social activities and their disclosure in annual reports (Katmon, Mohamad, et al., 2019).

Extant literature reveals that environmental disclosure level in Nigeria is grossly insufficient even among the environmentally sensitive firms (Odoemelam & Okafor, 2018). The authors argued that the business firms in Nigeria operate in an institutionally and legally weak environment. The presupposed weak performance of business firms in terms of CSR commitment and reporting had increased the stakeholders' agitations for environmental and social impacts of business operations on their communities (Moses, Che-ahmad, & Abdulmalik, 2020). Business operations have generated some negative externalities including pollution, climate change GHG emission and natural disaster, which have threatened the sustainability of economic activities.

Board of directors uses Corporate governance principles to actualize CSR. Still, part of the reasons for low CSR commitment and reporting in Nigeria is the lack of an effective judicial system capable of enforcing corporate governance practice (Opusunju & Ajayi, 2016). Corporate governance failure in Nigeria has been linked to a lack of political will by the government to implement corporate governance laws. Other causes of the failure include deliberate refusal to comply with the corporate governance laws by the politically connected

firms, low compliance by firms, a weak implementation by regulators, and contradictory corporate governance codes (Ozili, 2020).

Previous findings on the effect of corporate Governance mechanisms on CSR disclosure have produced confounding results. Some studies revealed positive effects; some indicate adverse effect while others indicate insignificant effects. Consequently, new empirical evidence, mostly, studies with a moderating variable, have been suggested for future researchers (Abdulkadir & Alifiah, 2020).

## **II. Literature Review**

Extant literature argues that triple bottom line reporting drive sustainability because consumers and investors would like to patronize green corporation leading to increased market share and market capitalization. Also, employees would like to work in the green corporation because of the healthy working environment and employers and management also would like to minimize cost as the cost of recycling is cheaper than new purchase (Ekwueme, Egbunike, & Onyali, 2013).

The Multiple regression analysis of secondary data collected from 300 listed firms in Australia revealed that Audit Committee's size, frequency of meetings, independence and gender diversity has a significant positive effect on CSR disclosure (Tashakor & Shamim, 2017). The study added that the audit committee's independent chair and members' financial expertise did not significantly affect CSR disclosure. In like manner, the analysis of 150 quoted firms on Iran stock exchange revealed that board size, board independence and audit committee's size, independence and financial expertise have a significant effect on CSR (Mohammadi, Saeidi, & Naghsbandi, 2020). However, the study could not establish the impact of managerial ownership and CEO duality on CSR. Empirical evidence from India through the panel data analysis of 386 companies shows that board independence, CEO duality and sustainability committee positively affect CSR disclosure. In contrast, board age, employee CSR training and women onboard reduce CSR disclosure (Fahad & Rahman, 2020). From Jordan, analysis of 147 banks for ten years using a checklist of 100 items and multiple regression analysis shows that board size positively affect CSR disclosure, but independent directors, institutional directors and female directors have an adverse effect on CSR disclosure (Ghabayen, Mohamad, & Ahmad, 2016).

On the contrary, evidence from Turkey reveals that audit committee attributes, including size, frequency of meetings and expertise did not have a significant relationship with environmental and social disclosure (Biçer & Feneir, 2019). The findings were based on correlation and regression analysis of 13 banks listed in the Borsa Istanbul for financial year-ends on 31 December 2017. Similarly, a study from Indonesia shows that gender and skill affect organizational and business practice as a female audit committee member with financial expertise had an adverse effect on CSR reporting (Widyasari & Ayunda, 2020). The conclusion was based on analysis of 157 firms listed on the Indonesia stock exchange from 2015-2016. Similarly, a study from Iran via multiple regression analysis of data collected from 133 companies listed on the Tehran stock exchange indicates that independence of audit committee, their numerical strength, gender diversity and financial expertise significantly improve disclosure of CSR activities (Barzegar, Kordi, & Malaki, 2019).

Existing literature from Europe through analysis of 69 non-financial European firms reveals that CSR disclosure is contingent upon audit committee's independence, financial expertise, chair independence, numerical strength and activities (Dwekat, Elies, & Guillermina, Tormo- Carbó Carmona, 2020). The study added that CSR disclosure in Europe also depends on Board independence, gender, activities and CEO duality. Also, from Malaysia, assessment of 200 firms listed in Bursa via ordinary least square regression reveals a significant positive effect of board educational level, gender diversity and tenure diversity on the quality of CSR disclosure while board age and national diversity adversely affect CSR disclosure (Katmon, Mohamad, Zam Zuriyati Norwani, & Al Farooque, 2019).

A study from Indonesia through the multiple regression analysis of 115 listed companies for two years indicates that audit committee effectiveness and companies' size have a positive effect on the extent of CSR disclosure (Waweru, 2018). From Pakistan, a regression analysis of data collected from 57 listed companies on Pakistan stock exchange shows that gender and national diversity considerably have a positive influence on the quality of CSR disclosure, age diversity had a significant negative effect. In contrast, the impact of educational level, educational background and tenure could not be statistically established (Khan, Khan, & Senturk, 2019).

Similarly, empirical evidence from Turkey through a regression analysis of 62 non-financial firms shows that only board size has a significant positive effect on CSR disclosure. In contrast, board independence and gender diversity did not have any significant positive impact (Akbas, 2016). Furthermore, a comparative analysis of drivers of CSR disclosure practices among 60 companies in Sub-Saharan Africa indicates that the drivers of CSR disclosure are not the same across the region (Jeroh, 2020). The study which selected 20 companies each from Nigeria, Kenya and South Africa revealed that board and audit committee characteristics significantly determine the level of CSR disclosure in Nigeria and Kenya. In contrary, the attributes could not statistically determine CSR disclosure in South Africa because South African has institutionalized environmental management practices.

Also, from Malaysia, regression analysis often listed companies indicates that qualifications of Chief Executive Officer, Chief Financial Officer and Audit Committee members have a positive effect on financial disclosure transparency. In contrast, training and multiple directorships have no significant impact (Ya'acob & Al-Razi, 2018). Similarly, a comparative analysis of companies filing CSR reports and those not filing CSR reports indicate that companies that report CSR activities have higher auditor quality. They also have higher audit committee quality, longer auditor tenure, better financial performance and lower auditor dismissal (Creel, 2015). An analysis of 2208 firm-year observation in the UK also indicates that board independence, gender diversity and financial expertise of audit committee enhances CSR strategy and social and environmental performance (Shaukat, Qiu, & Trojanowski, 2016).

In the same manner, a regression and correlation analysis of data collected from Czech transportation and storage industry revealed that a statistically significant relationship exists between firm size and CSR practice. In contrast, firm age and board gender diversity do not have a substantial effect on CSR practices (Cincalová & Hedija, 2020). The broadly accepted view is that Large firms are more likely to participate more in CSR because of their visibility and resources. However, Golrida, Muliani and Joshi (2019) argued that the form of firm size and CSR participation relationship in the context of developing countries is different from those in developed countries. Furthermore, Udayasankar (2008) argued that both very small and huge firms are equally motivated to participate in CSR while the medium-sized firm is the least motivated. He argued that the basis of the motivation differs.

From Nigeria, a correlation and regression analysis of six listed food product firms on Nigerian stock exchange indicate that board size and women on board increase CSR disclosure. In contrast, the effect of board independence could not be statistically established (Isa & Muhammad, 2015). Also, a regression analysis of 174 companies listed on Nigerian stock exchange between 2007 and 2008 reveals that the audit firm size and CSR committee improve CSR disclosure. Still, none of the corporate governance mechanisms including board independence, audit committee independence, CEO duality and ownership structure has a significant effect on CSR disclosure quality (Eriable & Odi, 2016). Also, a regression analysis of data collected from selected manufacturing firms listed in Nigerian stock exchange shows that board size, board structure, the proportion of women and non-executive directors in the board, and directors' remuneration have a positive effect on CSR disclosure. In contrast, the board ownership structure is having an adverse impact, and CEO duality is having no significant effect (Onuorah, Egbunike, & Gunardi, 2018).

The analysis of 24 non-financial public listed companies on Nigeria stock exchange also reveals that board independence and board meeting has a significant positive effect on corporate environmental reporting. In contrast, board size and risk management composition have no considerable impact on CSR disclosure (Aliyu, 2019). Similarly, ordinary least square regression analysis of 86 firm-year observations across 86 quoted companies on Nigerian stock exchange shows that board independence, board meeting and environmental committee have a significant effect on CSR disclosure. In contrast, audit committee independence and board size did not have a substantial impact (Odoemelam & Okafor, 2018).

The reviewed literature reveals confounding results on the effect of corporate governance mechanisms on Corporate Social responsibilities. It was noted that virtually, all the reviewed studies examined CSR disclosure without considering the weight of the figures disclosed and a particular programme on which CSR was done. Also, it was noted that the reviewed studies did not examine the moderating effect of firm size on the relationship between corporate governance mechanisms and CSR activities. Therefore, in addressing this gap, this study tested the following hypotheses:

**H<sub>01</sub>:** Corporate Governance Mechanisms (Board size, Gender Diversity and Audit Committee size) does not have a significant effect on CSR activities on education.

**H<sub>02</sub>:** Corporate Governance Mechanisms (Board size, Gender Diversity and Audit Committee size) does not have a significant effect on CSR activities on health.

**H<sub>03</sub>:** Corporate Governance Mechanisms (Board size, Gender Diversity and Audit Committee size) does not have a significant effect on CSR activities on community development.

**H<sub>04</sub>:** Firm size does not have a significant moderating effect on the relationship between Corporate Governance Mechanisms (Board size, Gender Diversity and Audit Committee size) and CSR activities on education.

**H<sub>05</sub>:** Firm size does not have a significant moderating effect on the relationship between Corporate Governance Mechanisms (Board size, Gender Diversity and Audit Committee size) and CSR activities on health.

**H<sub>06</sub>:** Firm size does not have a significant moderating effect on the relationship between Corporate Governance Mechanisms (Board size, Gender Diversity and Audit Committee size) and CSR activities on Community development.

### III. Methods

The study employed data collected from the annual reports of all the 12 Deposit money banks listed on the Nigerian stock exchange for ten years, 2009-2018. Board size, Audit committee size and Board gender diversity were used to proxy corporate governance mechanisms. CSR was disaggregated into Education, Health and community development and total assets were used to proxy firm size. The used measure board size and audit committee size based on their numerical strength and used the percentage of women on the board to measure board gender diversity. The study employed panel regression having carried out some diagnostic tests. Jarque-Bera test was employed for the normality test, while the study used Variance Inflation Factor and Durbin Watson for multicollinearity test and auto-correlation, respectively. Hausman's test was employed to select between fixed and random effect models, and the selections favoured the random effect model. The study extracted CSR expenditures on community development, Education, and Health to measure CSR.

#### 3.1 Model Specifications

The study employed the model below:

##### Model 1

$$\text{Education} = \beta_0 + \beta_1 \text{BS} + \beta_2 \text{ACS} + \beta_3 \text{BGD} + \epsilon \quad \text{Equation 1}$$

##### Model 2

$$\text{Health} = \beta_0 + \beta_1 \text{BS} + \beta_2 \text{ACS} + \beta_3 \text{BGD} + \epsilon \quad \text{Equation 2}$$

##### Model 3

$$\text{Community Development} = \beta_0 + \beta_1 \text{BS} + \beta_2 \text{ACS} + \beta_3 \text{BGD} + \epsilon \quad \text{Equation 2}$$

##### Model 4

$$\text{Education} = \beta_0 + \beta_1 \text{BS} + \beta_2 \text{ACS} + \beta_3 \text{GD} + \beta_4 \text{FS} + \beta_5 \text{FS} * \text{BS} + \beta_6 \text{FS} * \text{ACS} + \beta_7 \text{FS} * \text{BGD} + \epsilon \quad \text{Eq 4}$$

##### Model 5

$$\text{Health} = \beta_0 + \beta_1 \text{BS} + \beta_2 \text{ACS} + \beta_3 \text{BGD} + \beta_4 \text{FS} + \beta_5 \text{FS} * \text{BS} + \beta_6 \text{FS} * \text{ACS} + \beta_7 \text{FS} * \text{BGD} + \epsilon \quad \text{Eq 5}$$

Where:

**Education, Health and Community Development = Dependent Variables**

$\beta_0$  = Constant

$\beta_1 - \beta_3$  = Coefficients of independent variable

$\beta_4$  = Coefficient of the moderator

$\beta_5 - \beta_7$  = Coefficient of the interaction effects

$\epsilon$  = Error term

BS = Board Size

ACS = Audit Committee size

BGD = Board Gender diversity

FS = Firm Size

FS\*BS = Interaction between firm size and Board size

FS\*ACS = Interaction between firm size and Audit committee size

FS\*BGD = Interaction between firm size and Board Gender Diversity

### IV. Results And Discussion

This section comprises the outcome of the descriptive and inferential analysis.

#### 4.1 Descriptive Analysis

The descriptive statistics of the data are presented in Table 1 below:

**Table 1 Descriptive Statistics**

	Audit Committee	Board size	Community Development	Education	Health	Gender Diversity	Firm size
Mean	5.7647	13.808	9.58E+08	3.06E+08	6.02E+08	0.177425	0.0232
Median	6.000000	14.00000	95701976	155546455	1000000	0.166667	0.016113
Maximum	8.000000	20.00000	9.32E+10	1.71E+10	6.86E+10	0.428571	0.264573
Minimum	4.000000	7.00000	513720.0	0.000000	0.000000	0.000000	-0.09856
Std. Dev.	0.672787	2.464183	8.50E+09	1.87E+09	6.26E+09	0.109025	0.041711
Skewness	-1.697641	-0.55683	10.79936	7.885450	10.80862	0.000142	2.161971
Kurtosis	6.370389	4.167151	117.7538	65.67959	117.8866	2.244764	13.74802
Jarque-Bera	113.4836	6.873130	68174.74	20887.26	68331.20	2.851904	671.0822
Probability	0.000000	0.032175	0.683400	0.572300	0.345600	0.240280	0.000000
Sum	686.0000	686.0000	1.15E+11	3.67E+10	7.22E+10	21.29101	2.795579
Sum sq Dev	53.41176	53.41176	722.5917	4.17E+20	4.66E+21	1.414496	0.207036
Observation	119	119	120	120	120	120	120

Source: Author's computation (2020)

Table 4.1 shows that on average, the audit committee of the selected firms comprises six members, the maximum member of the audit committee was eight, and the company with the least audit committee members

has four. The standard deviation of the audit committee from the average was 0.672786, and the committee members were not normally distributed as revealed by Jarque-Bera probability which is less than 5% (JB =113.4836). Similarly, the average board size was approximately 14 members; the company with the least board size has seven members on the board while the company with the largest board size has 20 directors. The standard deviation from the mean was 2.464183, and the data was not normally distributed (JB Statistics = 113.4836,  $p = 0.032 < 0.05$ ). In like manner, the gender diversity was 0.177425 on average; the maximum gender diversity was 0.428571, which implies that female directors on board were about 42.9%. The minimum gender diversity was 0.000000, which implies there were some years in the period of investigation where there was not a single female director. The percentage of male directors on the board was 100%. The standard deviation from the mean was 0.109025, and the data were normally distributed, as shown by the probability value, which is greater than 5% (JB Statistics = 2.851904,  $p = 0.240280$ ).

Furthermore, the table provides information on CSR expenditures which comprises community development, health and education. The average amount spent on community development was 9.58E +08 per annum, the maximum amount spent was 9.32E+10 per annum while the minimum amount spent on community development during the period of investigation was ₦513,720. The standard deviation of community development was 8.50E +09, and the data have a normal distribution as shown by Jarque -Bera probability that is greater than 5% (JB Statistics = 68174.74,  $P = 0.0000$ ).

On education, the investigated banks spent ₦3.06E+08 on average, the maximum amount they spent was 1.71E+10, and the minimum amount was 0.000000 which implies there were some years they did not spend any amount on education. The standard deviation from the mean was 1.87E +09 and the data was normally distributed (JB Statistics = 20887.26,  $P = 0.572300 > 0.05$ ). Another area of corporate social responsibility which the investigated banks focused was health. On average, a sum of ₦ 6.02E +08. The maximum amount spent on health was ₦ 6,86E +10, and the minimum amount was ₦0.000000, which implies there were some years where no amount was spent on health. The standard deviation was 6.26E + 09 and the data was normally distributed (JB statistics = 68331.20,  $P= 0.345600 > 0.05$ ).

Finally, the average firm size was 0.0232, which is about 2% and the maximum was about 26. 5% while the minimum was - 0.09856. The standard deviation was 671.0822, and the data were not normally distributed (JB statistics = 671.0822,  $p = 0.000000$ ).

**4.2 Diagnostic Tests**

The study tested some assumptions of the classical linear regression model before proceeding to regression analysis. The hypotheses tested include normality test, multicollinearity tests and autocorrelation tests.

**4.2.1 Normality Test**

The Jarque-Bera test in table 1 shows the audit committee size, board size, and firm size do not have a normal distribution. However, gender diversity and the dependent variables – education, health and community development have a normal distribution. Since the dependent variables have a normal distribution, it implies the study can proceed with the parametric test.

**4.2.2 Multicollinearity Test**

The study tested for multicollinearity to detect whether there is a strong or perfect correlation among the independent variables. The presence of multicollinearity can affect the regression output and lead to the wrong conclusion. The study used the Variance Inflation Factor (VIF) and Tolerance to detect the presence of multicollinearity. Table 2 shows that the VIF values of all the independent variables are greater than one and less than 10, which implies the absence of multicollinearity. In Like manner, Terrence values which are greater than 0 but less than one shows there is no multicollinearity problem

**Table 2 Variance Inflation Factor**

	Collinearity Diagnostic		Dependent Variable
	Tolerance	VIF	
Board size	.956	1.046	Education
Gender diversity	.915	1.093	Education
Audit Committee	.953	1.050	Education
Board size	.513	1.950	Health
Gender diversity	.485	2.064	Health
Audit Committee	.515	1.950	Health
Board size	.916	1.086	Community Development
Gender diversity	.469	2.062	Community Development
Audit Committee	.934	1.081	Community Development

Source: Author’s Computation (2020)

**4. 2. 3 Autocorrelation Test**

This study also tested for autocorrelation using Durbin-Watson. The Durbin -Watson results fall within the acceptable region of 1.5 – 2.5. This result indicates that there is no autocorrelation problem.

**Table 3. Autocorrelation Statistics**

S/N	Durbin Watson
Model 1	2.128484
Model 2	2.096568
Model 3	1.749817
Model 4	2.138669
Model 5	1.965474
Model 6	2.343246

Source: Autor’s Computation (2020)

**4.3 Post Estimation Test**

The regression model can be estimated using Pooled Ordinary Least square, Random effect model and Fixed effect model. However, since the data is a panel data, the study employed the Hausman test to select the appropriate model between the random effect model and Fixed effect model. The study tested the following hypothesis:

**H<sub>0</sub>: Random effect model is appropriate**

**H<sub>a</sub>: Fixed effect model is suitable.**

**Table 4. Correlated Random Effects - Hausman Test**

Test Summary	Chi-Square Statistics	Chi-sq d.f	Prob	Dependent variable
Model 1-Cross-section random	2.725834	3	0.4359	Education
Model 2-Cross-section random	0.229009	3	0.9728	Health
Model 3- Cross-section random	3.824867	3	0,2810	Community Development
Model 4- Cross-section random	12.851559	7	0.0758	Education
Model 5- Cross-section random	4.346306	7	0.7391	Health
Model6 –Cross-section random	4.435089	7	0.7543	Community Development

Source: Author’s Computation (2020)

Table 4 shows that the p-values are more significant than 0.05. This result implies that the random effect model is suitable for the study

**4.4 Hypotheses Testing**

**This section comprises tests of hypotheses for the study.**

**4.4.1. Effect of Corporate Governance on CSR Activities**

This section comprises the effect of corporate governance mechanisms on CSR activities on education, health and community development.

**Table 5 Effect of Corporate Governance on CSR Activities on Education**

Variable	Coefficient	Std. Error	t-Statistic	Prob.	R-Square	F-Stat.	F-Prob
C	-8.061037	8.214556	-0.981311	0.3285	0.061739	2.522384	0.0512
GENDER_DIVERSITY	4.478519	6.536382	0.685168	0.4946			
AUDITCOMMITTEE_SIZE	3.050172	1.221598	2.496871	0.0139			
BOARD_SIZE	0.244816	0.322211	0.759800	0.4489			

Source: Author’s Computation (2020)

Table 5 shows that Gender diversity and Board size have an insignificant positive effect on CRS activities. However, the Audit committee size has a significant positive impact on CSR commitment. Even though Gender diversity does not have a substantial effect on CSR spending on education, its effect is the highest. This result implies that women on the board are more inclined to CSR on education.

**Table 6 Effect of Corporate Governance on CSR Activities on Health**

Variable	Coefficient	Std. Error	t-Statistic	Prob.	R-square	F-Sta	F-Prob.
C	-18.81518	8.691870	-2.164687	0.0325	0.089681	3.743625	0.013109
AUDITCOMMITTEE_SIZE	3.818674	1.284255	2.973454	0.0036			
BOARD_SIZE	0.391162	0.349456	1.119344	0.2653			
GENDER_DIVERSITY	5.469815	7.670513	0.713096	0.4772			

Source: Author’s computation (2020)

In the same vein, Table 6 shows that Audit committee size has a significant positive effect on CSR commitment on Health (B= 3.818674, P = 0.0036 < 0.05). However, board size (B= 0.391162, P = 0.2653 > 0.05) and Gender diversity (B= 5.469815, P = 0.4772) have insignificant positive effect on CSR activities on Health. Still, Gender diversity has the largest effect compared to Audit committee size and board size.

**Table 7 Effect of Corporate Governance on CSR Activities on Community Development**

Variable	Coefficient	Std. Error	t-Statistic	Prob.	R-Square	F-Stat.	F-Prob
C	15.25751	2.010012	7.590758	0.0000	0.045609	1.831907	0.145267
AUDITCOMMITTEE_SIZE	0.565377	0.298716	1.892691	0.0609			
GENDER_DIVERSITY	2.430713	1.546738	1.571509	0.1188			
BOARD_SIZE	-0.059674	0.077871	-0.766316	0.4451			

Source: Author’s Computation (2020)

Similarly, Table 7 shows that audit committee size (B= 0.565377, P – 0.0609 > 0.05) and Gender diversity (B = 2.430713, P = 0.1188 > 0.05) have insignificant positive effect on CSR commitment on community development. On the contrary, Board size has insignificant negative effect (B= -0.059674, P = 0.4451 > 0.05).

**4.4.2 Moderating Effect of Firm Size on the Relationship between Corporate Governance Mechanisms and CSR activities on education**

This section comprises the moderating effect capital structure on the relationship between corporate Governance mechanisms and CSR spending on education

**Table 8. Firm size, Corporate Governance Mechanisms and CSR activities on education**

Variable	Coefficient	Std. Error	t-Statistic	Prob.	R-Square	F-Stat	F-Prob
C	-3.827752	24.67864	-0.155104	0.8770	0.129348	2.234575	0.029282
GENDER_DIVERSITY	8.463648	8.386716	1.009173	0.3151			
AUDIT_COMMITTEE_SIZE	4.838686	1.498148	3.229780	0.0016			
BOARD_SIZE	0.149711	0.403111	0.371388	0.7111			
FIRM_SIZE	-0.222662	0.897283	-0.248151	0.8045			
FIRMSIZE*BOARDSIZE	0.013218	0.013254	0.997259	0.3208			
FIRM SIZE*GENDER	-0.323817	0.293579	-1.102998	0.2724			
FIRM SIZE*AUDIT COMMITTEE	-0.070100	0.054245	-1.292281	0.1990			

Source: Author’s Computation (2020)

According to Table 8, the interaction of firm size with audit board size has an insignificant positive effect on CSR on education (B= 0.013218, P = 0.3208 > 0.05). However, the interaction of firm size with Gender diversity has an insignificant adverse effect on CSR activities on education (B= -0.323817, P =0.2724 > 0.05). Similarly, the interaction of firm size with the audit committee size has an insignificant negative effect on CSR activities on education (B=-0.070100, P = 0.1990). Comparing the R-square in Table 5 (R<sup>2</sup> =0.061739) when moderator was not involved with R-Square in Table 8 (R<sup>2</sup> = 0.129348) when moderator was involved, the results implies that the moderating variable (Firm size) has increased the effect of corporate governance mechanisms on CSR commitment by 6.7% (0.129348 – 0.061739 = 0.067609). The Changes in the coefficients of the interaction of firm size with the audit committee size, gender diversity and board size compared with when there was no interaction also implies a moderating effect but not significant at 5% level of significance.

**Table 9. Moderating effect of Firm Size on the Relationship between Corporate Governance Mechanisms and CSR activities on health**

Variable	Coefficient	Std. Error	t-Statistic	Prob.	R-Square	F=Stat.	F-Prob
C	-24.93800	31.07402	-0.802535	0.4240	0.095462	1.643364	0.030827
AUDIT_COMMITTEE_SIZE	4.682642	1.874820	2.497649	0.0140			
BOARD_SIZE	0.321731	0.508795	0.632338	0.5285			

GENDER_DIVERSITY	10.67641	10.66783	1.000804	0.3191
FIRM_SIZE	0.282622	1.131829	0.249703	0.8033
FIRM_SIZE*BOARD_SIZE	0.008453	0.016600	0.509220	0.6116
FIRMSIZE*GENDERDIVERSITY	-0.287766	0.375686	-0.765974	0.4453
FIRM_SIZE*AUDIT_COMMITTEE	-0.053280	0.069808	-0.763244	0.4470

**Source: Author’s computation (2020)**

Similarly, the interaction of firm size with the board size, gender diversity and audit committee does not have a significant effect on CSR commitment on health at a 5% level of significance. However, the R-Square, when moderation was included in the model, was 0.095462 compared with 0.089681 when the moderator was not included. It implies that the moderator contributed just about 0.57% to CSR activities on health.

#### 4.4.3 Discussion of Findings

Table 5 shows that Gender diversity and Board size have an insignificant positive effect on CRS activities. This result lends support to an earlier study from Turkey, which concluded that gender diversity did not have a significant effect on CSR disclosure(Akbas, 2016). Also, this finding lends credence to a similar study in Australia which found a positive effect of board size and gender diversity on CSR disclosure(Tashakor & Shamim, 2017).However, it contradicts a similar study from Indonesia, which found an adverse effect of board size and gender diversity on CSR disclosure(Widyasari & Ayunda, 2020). However, the Audit committee size has a significant positive impact on CSR commitment. This finding also lends supports to earlier results in Australia (Tashakor & Shamim, 2017) and Iran(Mohammadi et al., 2020).It, however, contradict a finding from Turkey which concluded that audit committee attributes including size, frequency of meetings and expertise did not have a significant relationship with environmental and social disclosure (Biçer & Feneir, 2019). Even though Gender diversity does not have a substantial effect on CSR spending on education, its effect is the highest. This result implies that women on the board are more inclined to CSR on education.

As regards CSR commitment to health, this study also revealed that only the audit committee size has a significant effect on CSR spending on health. In contrast, board size and gender diversity do not have a considerable effect. Notwithstanding, gender diversity has the largest impact on CSR spending on health compared with board size and audit committee size. Concerning CSR spending on community development, none of the audit committee size, gender diversity and board size has a significant effect. However, compared with board size and audit committee size, gender diversity has the largest influence on CSR spending on community development.Since gender diversity, has the largest impact on CSR activities on education, health, and community development, the study implies that women are more inclined to all forms of social and environmental responsibilities.

Furthermore, the study revealed that firm size does not have a significant moderating effect on the relationship between corporate governance mechanisms including board size, audit committee size and gender diversity and CSR activities including education, health and community development. The study shows that the interaction of firm size with audit committee size, board size and gender diversity reduced their effect on CSR activities on education, health and community development.

### V. Conclusion

This study has empirically revealed new evidence of the effect of corporate governance mechanisms on CSR activities from Nigeria. Unlike the previous studies that examined CSR disclosure, this study evaluated the effect of corporate governance mechanisms on CSR spending on education health and community development. In response to a call from previous studies to include a moderator in the CSR research model, this study employed firm size as the moderating variable. This study revealed that the Audit committee size has a significant effect on CSR spending on education and health, while it has an insignificant impact on community development. It further revealed that board size and gender diversity do not have a significant effect on CSR activities on education, health and community development. Also, the study showed that gender diversity has the largest effect on CSR activities on education, health and community development compared with board size and audit committee size.

Similarly, the study revealedthat firm size insignificantly moderated the effect of boardsize, audit committee size and gender diversity on CSR spending on education and health. Contrary to the popular view that large firms are more involved in CSR practices than small firms, this study revealed that Firm size reduces the effect of corporate governance mechanisms on CSR activities.



Thus, this study recommends that the board should accommodate more percentage of women as they are more inclined to CSR. The study also suggests that firms should have the largest number of audit committee allowed by the existing law. In Nigeria, new Companies and Allied Matters Act (CAMA) (2020) recommends five members comprising two non-executive directors and three representatives of the shareholders of the company. This ceiling of five members compared with the former provision of a maximum of six members may negatively affect the firm's involvement in CSR practices. Therefore, the condition should be critically looked into by the regulators. Instead of total assets, future authors may use other metrics to proxy firm size.

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