CORPORATE SOCIAL RESPONSIBILITY AND FINANCIAL PERFORMANCE IN NIGERIAN QUOTED OIL AND GAS INDUSTRY

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Abstract
The paper investigated the direction of causality between CSR and financial performance of the quoted oil and gas industry. The data set contains ten years from 2014 to 2018 of firm specification variables. Data were gathered from audited financial reports of 8 purposively selected firms from quoted companies in the Oil and Gas industry, Nigeria Stock Exchange (NSE) Factbook and statistical Bulletin of the Central Bank of Nigeria. Granger causality test model was employed to investigate the direction of causality between Corporate Social Responsibility and Financial Performance. The result indicated that there was no causal relationship between corporate social responsibility and Return on Assets (χ^2=3.479, p>0.05). Return on Asset does not Granger cause corporate social responsibility (χ^2=2.279, p>0.05). Also, corporate social responsibility does not granger cause Return on Asset. The study concluded that significant feedback did not exist in any direction of causality between corporate social responsibility and profitability, but there is a positive relationship between them.
Keywords: Corporate social responsibility, Granger causality, Nigeria, Profitability

Introduction

Nigeria is the most populous country of the fifteen member countries of the Organization of the Petroleum Exporting Countries (OPEC) Countries in 2020 with 203 million inhabitants. The petroleum industry in Nigeria provides a significant income in Nigeria; sourcing about 95% of Nigeria's foreign exchange earnings. The oil and gas companies play a significant role in the Nigerian economy with thirteen oil and gas industries as of 26th March 2020.

Corporate success is the achievement of an organization's goals and objectives. Growth is significant in a corporate organization as are all living things. Any company that stops growing is planning for the death of the corporation. The corporate output is calculated in numerical terms, such as operating income or benefit, Return on Working Capital (ROCE), Return on Investment (ROI) Return on Equity (ROE), Index of Productivity (P.I.), Market Share, etc. Corporate success may also be expressed in social or cultural terms such as Customer Satisfaction, Group Performance, Climate Management Program and Employee Relations. Financial performance has implications for the survival of the company. The organization that manages the company's resources effectively and efficiently will be positively reflected by high financial performance and this, in turn, will contribute to the economic development of the country (Williams, and Ayodele, 2017).

Company's performance is essential to management and other stakeholders such as shareholders, debtors, creditors, members of the community and the Government (Iswatia & Anshoria,2007). Corporate Social Responsibility (CSR) means the business model of a corporation should be socially responsible and environmentally sustainable. It means that the activities of the company should benefit society by being socially responsible, and by being environmentally sustainable, it means the company's activities should not harm the environment. Companies that conduct CSR activities effectively increasing their competitiveness by improving their reputation and gaining competitive advantage in the nearest future. Since the government is notable in solving any problem in society, companies should play their part in solving many critical social problems that could be achieved through the growth of public-private partnership; Improving supply chain operations and environmental and natural resource issues. Both these practices will, in the immediate future, contribute to financial results. The idea of CSR implies how an organization can manage its business process to produce an overall positive impact on society.

It also means how organizations, by enhancing the quality of life of the local community and society at large, are behaving ethically and contributing to the economic growth of society. The CSR is a collection of principles that the organization subscribes to to make a positive effect on society. It also means how organizations, by enhancing the quality of life of the local community and society at large, are behaving ethically and contributing to the economic growth of society.

Statement of the Problem

The empirical research on the construct of CSR and financial performance still lacks an understanding of the nature of the dynamic interactions that exist among the two phenomena. While previous studies have failed to provide a consistent framework of the theory that supports prior causal directions between the variables, many research analyzed these relationships by believing causality from one direction to the next. Considering the enormous

expenditure incurred annually on CSR, it is generally held that CSR may increase profits from the company

Nevertheless, few managers and executives are conscious of the research on this critical topic. Most executives believe CSR can boost earnings They understand that CSR will foster consumer interest for their business which can lead to higher revenue, improve employee loyalty and attract better employees to the company. CSR activities which focus on sustainability issues can also reduce costs and improve efficiencies. This study investigated the dynamic interactions between these variables by treating them as endogenous and thus able to identify the nature of the causal and feedback effect between the phenomenon of CSR and Financial Performance in the Nigerian quoted Oil and Gas industry. Hence the study established what the case is for Nigeria.

Review of Literature

The empirical study results on the corporate social responsibility and financial performance link have never been in agreement, as some studies determined negative correlation, some determined positive correlation, while others determined no correlation at all. The argument for a definite link between corporate social responsibility and financial results implies that the visible costs of a business are counter to the implicit costs of the stakeholders, This point of view is also formulated from the viewpoint of reducing costs and ensuring their happiness for the main stakeholders (Hou, 2019; Rodriguez-Fernandez, 2016). Therefore, this hypothesis further infers that dedication to corporate social responsibility will lead to increased production costs and decrease stakeholders' hidden costs. This claim is valid and rational, as good relationships are crucial to a company's survival with staff, suppliers and customers.

Clevenger and MacGregor (2019) pointed out that some shareholders regard corporate social responsibility as a symbolic management skill. Namely, Corporate social responsibility is a sign of credibility, and the image of the business will be strengthened by efforts to benefit the environment, which would have a positive sales impact. Hitherto, when a company increases its costs by improving corporate social responsibility in order to increase competitive advantages, such corporate social responsibility activities can enhance company reputation, thus, in the long-run financial performance can be improved, by sacrificing the short term financial performance. The increased costs would result in little benefit when conducting corporate social responsibility programs if calculated in economic interests. If other stakeholders, such as workers or the environment, are ignored, this results in lower corporate social responsibility for the company; the financial performance of the company can be enhanced.

Akinyede & Ojedele (2019) researched the effect of corporate social responsibility on accounting expenditure conservatism in the Nigerian banking industry and concludes that corporate social responsibility promotes accounting expenditure conservatism in the Nigerian banking sector. They studied Conservatism in this regard is represented by the ratio of the book value of shares to the market value of the share. At the same time, corporate social responsibility was surrogated by expenditure on societal development, employee welfare and environmental management.

Nkemjika and Nkechi (2017) ascertained the relationship between CSR and performance by comparing events in the Nigerian banking sector and the Nigerian manufacturing sector. Findings showed CSR significantly impact on the performance of both firms in the

manufacturing and the banking sector though manufacturing companies develop more on CRS activities than banks. This is in contrast to Sadiq, Azizat, Fatima, and Ibrahim (2017) who researched on Corporate social responsibility and firms' performance in Nigeria (2005 – 2014). Results announced no significant relationship between corporate social responsibility and firms" performance measured by size: and the presence of a negative relationship between corporate social responsibility and firm "s efficiency.

Bolanle (2012) argues that long term investment in corporate social responsibility provides the best return. Banks should make some investment in corporate social responsibility in Nigeria. This shows a positive relationship between spending on corporate social responsibility and profitability for the banks. Bolanle (2012) argues that spending on corporate social responsibility. So, there is a causal link between corporate social responsibility and bank profitability. It is because corporate social responsibility cost/expenditure would further reduce the tax charged by banks. This makes the market climate friendlier. The government should track social responsibility spending by companies to prevent false claims to minimize the tax burden.

Sial, Chunmei and Khuong (2019) say that the relationship between corporate social responsibility activities of the company and its financial results is two way. We worked on data from the panel and tested the model of random effect, resulting in a positive relationship between these two variables. Cooper (2017) disclosed some of the conditions under which corporations are likely to embark on corporate social responsibility to include 'public and private legislation, the involvement of non-governmental and other independent organizations monitoring corporate behaviour, institutionalized guidelines on acceptable behaviour, Associated behaviour between corporations and organized dialogues between corporations and their stakeholder's research on the relationship between corporate social responsibility and corporate financial performance showed divergent results. Although some demonstrated corporate social responsibility contributing to improved financial success

The critical finding obtained through univariate research shows that businesses that are socially more responsible have better financial performance, i.e. they are more profitable and therefore have greater credibility. The inference is drawn from the fact that there is a causal link between efficiency and social responsibility, i.e. a higher degree of productivity enables better allocation of resources for socially more responsible corporate performance and vice versa; corporate socially responsible performance affects credibility and improved efficiency. Using First Bank Nigeria Plc, Amole, Adebiyi and Awolaja, (2012) conducted their investigation into the causal relationship between corporate social responsibility and bank profitability in Nigeria. Like a case study. Secondary data were gathered from historical sources, in particular from the bank's audited annual reports over the various years. The outcome of the regression analysis conducted showed a positive relationship between investments in corporate social responsibility and bank profitability.

Model Specification

This research uses the Granger causality test to establish the causal relationship between the two variables, whether they have a unidirectional or bi-directional (feedback) relationship, and these variables were used to predict one another or not. The Granger's 1969 solution to the problem of whether X causes Y is to see how much of the present Y can be

explained by Y's past values and then see whether adding lagged X values will boost the explanation; Y is said to be Granger caused by X whether X improves in Y's estimation, or equivalently if the coefficients on the lagged X's are statistically significant. Remember that causation is two-way

It is necessary to remember that the "X Granger causes Y" argument does not mean that Y is the consequence or product of X. Granger causality tests priority and quality of knowledge but do not imply causality in the more traditional use of the term.

$$\Delta Y_\times = \sum_{n=1}^{k} \alpha_t \Delta Y_{t-1} \sum_{j=1}^{k} \beta_t \Delta X1_{t-j+} t \dots\dots\dots\dots\dots\dots\dots(1)$$

$$\Delta X_\times = \sum_{n=1}^{k} \delta_t \Delta X_{t-i} \sum_{j=1}^{k} y_t \Delta Y_{t-j+} \mu t \dots\dots\dots\dots\dots\dots\dots(2)$$

This work primarily used the standard Granger test to assess whether past changes in one factor (say CSR) help explain current changes in another variable (ROA). However, if the findings are the same, then one assumes that CSR is not Grangerof ROA. To find out if causality is going in the opposite direction. In other words, repeat checking with ROA and CSR interchanged will be carried out from ROA to CSR. Using Granger causality framework, the research presented the following models of causal relationships:

$$ROA_t = \sum_{n=1}^{k} \alpha_t ROA_{t-1} \sum_{j=1}^{k} \beta_t CSR_{t-j+} t \dots\dots\dots\dots\dots\dots\dots(3.5)$$

$$CSR_t = \sum_{n=1}^{k} \alpha_t CSR_{t-1} \sum_{j=1}^{k} \beta_t ROA_{t-j+} t \dots\dots\dots\dots\dots\dots\dots(3.6)$$

Or, equivalently, in matrix form:

$$\begin{pmatrix} ROA_t \\ CSR1_t \end{pmatrix} = \begin{bmatrix} \alpha \\ \delta \end{bmatrix} + \begin{vmatrix} \alpha_i & \beta_t \\ \delta_i & y_t \end{vmatrix} \begin{bmatrix} ROA_{t-1} \\ CSR_{t-t} \end{bmatrix} + \dots + \begin{bmatrix} \alpha_k & \beta_k \\ \delta_k & y_k \end{bmatrix} \begin{bmatrix} ROA_{t-k} \\ CSR_{t-k} \end{bmatrix} + \begin{bmatrix} \ell t_t \\ \mu t_t \end{bmatrix}$$

ROA and CSR stand for the pairwise sequence under consideration from equations 3.4 and 3.5 above, and K is the necessary lag period to be obtained by the Final Prediction Error (FPE) criterion of Akaike (1969). E.g., if β, = 0 and sometimes = 0, then CSR does not cause Granger to cause ROA in equation (3.4), and likewise, ROA does not cause Granger to cause CSR in equation (3.5). Thus it means that CSR and ROA are believed to be separate, other things being equal.

The research will undertake pairwise Granger causality tests among the predicting CSR sequence, respectively, of the predictor CSR. Where the coefficients of the endogenous variables are αt βt and Yt, and the terms of stochastic error are ambient and μt.

A priori Expectation

The presumption is that the higher the Corporate Social Responsibility, the greater the likelihood of an increase in financial efficiency. Moreover, the higher the financial results, the greater the Corporate Social Responsibility, That means the assumption is that the relationship

between Corporate Social Responsibility and Financial Results would be causal. Therefore a constructive relationship is postulated between Corporate Social Responsibility and Financial Performance.

The b1 > 0

Empirical Analysis

The model for the analysis of the direction of causality between Corporate Social Responsibility and Financial performance is Granger causality test model, as shown in equation 3.7 and 3.8 and repeated below:

$$ROA_t = \sum_{n=1}^{k} \alpha_t ROA_{t-1} \sum_{j=1}^{k} \beta_t CSR_{t-j+} \; t \; ....(3.5)$$

$$CSR_t = \sum_{n=1}^{k} \alpha_t CSR_{t-1} \sum_{j=1}^{k} \beta_t ROA_{t-j+} \; t \; ....(3.6)$$

Tests for Stationary

An essential concern in data analysis is to know whether a series is stationary (do not contain a unit root) or not stationary (contains a unit root). Time series data are often assumed to be non-stationary. Thus it is necessary to perform a pre-test to ensure there is a stable co-integrating relationship among the variables to avoid the problem of spurious regression which is a condition for using the Granger Causality test. Therefore, to test for the stationarity, quantitative analysis of unit roots test of Levin, Lin and Chu t (assuming standard unit root process), Im, Pesaran and Shin W-stat Augmented Dickey-Fuller test (ADF) and P.P. – Fisher Chi-square were used.

Table 1 shows the result of the unit root tests. Levin, Lin and Chu's test assume a standard unit root process while the other three tests assume individual unit root process. As all the p-values are smaller than 1% the null hypothesis is rejected, the study concluded that the two variables series are stationary. The estimated VAR is stable (stationary) as all roots have modulus less than one and lie inside the unit circle

Table 1: The Result of the Unit root tests

Test	CSR(p-value)	ROA (p-value)	REMARKS
Levin, Lin and Chu	0.00011	0.0000	Stationary
Im, Pesaran and Shin W-stat	0.1224	0.0000	Stationary
ADF – Fisher Chi-square	0.0844	0.0000	Stationary
PP – Fisher Chi-square	0.1021	0.0000	Stationary

Source: Analyzed Data, 2019

Auto regression Lag Order Selection Unrestricted Criteria

For the selection of the joint lags, we considered the VAR lag Order Selection Criteria. The results specify the maximum lags to "test" for as displayed in table 2 The table indicates the selected lag from each column criterion by an asterisk"*". However, searching over the lag lengths (Kl to K4) and applying information criterion to determine the optimal length of the lag structure. Akaike information criterion, following modified L.R. test statistics Schwarz

information criterion, Hannan-Quinn information criterion and final prediction error suggest seven lags.

Table 2: The Result of the VAR Lag Order Selection Criteria

Exogenous   variables: CSR   ROA

Endogenous variables: CSR ROA   Exogenous

Variables: C

Sample: 2009   2018

Included observations:16

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-21.45314	NA	0.969407	2.806643	2.854930	2.809116
1	-12.21048	16.17470	0.346367	1.776307	1.872881	1.781263
2	-11.66890	0.880033	0.367962	1.833613	1.978473	1.841031
3	-11.66210	0.010204	0.419249	1.957762	2.150909	1.967663
4	-11.65700	0.007010	0.479926	2.082125	2.323559	2.094488
5	-11.20633	0.563342	0.522762	2.150791	2.440511	2.165627
6	-10.30681	0.011959	0.542668	2.163351	2.501358	2.180660
7	-9.814249	0.492558*	0.599006*	2.226781*	2.613075*	2.246563*
8	-1.304604	7.445939	0.246145	1.266076	1.722657	1.310330

*indicate lag order selected by the criterion L.R.: Sequential modified L.R. test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

H.Q.:   Hannan-Quinn   information   criterion

Source: Analyzed Data, 2019

Vector Auto Regression Estimates

Using the model defined under specification, the causal nexus between profitability (ROA) and corporate social responsibility (CSR) was examined as shown in table 3 The VAR approach was adopted and upon verification of the appropriate lag; it was found that the optimal lag should be 7. Table 3 presents the criteria for checking the appropriate optimal lag. The two results are at an optimal level.

Table 3: Vector Auto Regression Estimates

	CSR	ROA
CSR(-1)	0.632573	-0.013965
	(0.33073)	(3.94047)
	[1.91266]	[-0.34510]
CSR(-2)	-0.365001	0.003042
	(0.44908)	(0.06495)
	[0.81278]	[0.05535]
CSR(-3)	1.335578	0.023338
	(0.66109)	(0.08334)
	[1.96093]	[0.28005]
CSR(-4)	-1.63153	-0.010703
	(0.43029)	(0.05265)
	[-2.47076]	[-0.20329]
CSR(-5)	0.202663	0.059612
	(0.36215)	(0.04431)
	[0.55961]	[1.34529]
CSR(-6)	0.120848	-0.037981
	(0.42758)	(0.05232)
	[0.28263]	[-0.72597]
CSR(-7)	0.250610	0.033895
	(0.38921)	(0.27483)
	[0.64390]	[0.44009]
ROA(-1)	-3.379796	0.120951
	(2.24616)	(0.11779)
	[-1.50470]	[-1.43581]
ROA(-2)	-1.424932	-0.169123
	(0.96266)	(0.111779)
	[-1.48020]	[-1.43581]
ROA(-3)	0.365676	-0.176955
	(0.72868)	(0.08916)
	[0.50183]	[-1.98469]
ROA(-4)	-2.685241	-0.163035
	(1.13173)	(0.15387)
	[0-2.37269]	[-1.05955]
ROA(-5)	0.453865	-0.163035
	(1.25756)	(0.15387)
	[0.36091]	[-1.05955]
ROA(-6)	-0.322152	-0.065410
	(0.52974)	(0.06482)
	[-0.60814]	[-1.00914]
	0.747552	-0.041146
ROA(-7)	(0.47711)	(0.06482)
	[1.56682]	[-0.70482]
	-0.078061	-0.230406
C	(1.00898)	(0.12321)
	[-0.07752]	[-1.87001]
R-squared	0.921652	0.624533
Adj. R-squared	0.799777	0.040474
Sum sq. resids	81.493033	0.022363
S.E. equation	0.407299	0.049836
F-statistics	7.562278	1.069298
Log likelihood	-0.727597	49.69178
Akaike AIC	1.310633	-2.890982
Schwarz` S.C.	2.046917	-2.154698
Mean dependent	6.537917	0.053333
S. D. dependent	0.910241	0.050676

Table 4: The Result of the Vector Auto Regression Estimates
Sample (adjusted): 2018
Included observations: 24 after adjustments
      Standard errors in ( ) & t-statistics I [ ]

Determinant resid covariance (dof adj.)	0.000412
Determinant resid covariance	5.79E-05
Log likelihood	48.97471
Akaike information criterion	-1.581226
Schwarz criterion	-0.108659

Source: Analyzed Data, 2019

Vector autoregression Granger Causality/ Block Exogeneity Wald and Pairwise   Granger Causality

To check the direction of causality and the significance of the observed nexus, chi-square statistics were derived by the application of the pairwise Granger Causality test, for a lag equal to 5 as shown in table 5 and 6, The chi-square statistics shows that corporate social responsibility has no significant causal effect on profitability (ROA) (chi-square=2.28, P=0.32. There was also no significant causal nexus from profitability (ROA) to corporate social responsibility (CSR), with the chi-square = 3.48 and p < 0.18 as indicated in table 4.8. This result indicated that there was no causal relationship between corporate social responsibility (CSR) and profitability (ROA) and also no causal relationship between profitability and corporate social responsibility meaning that the null hypothesis is accepted.

That is, there was no causal nexus significant from corporate social responsibility (CSR) to profitability (ROA). However, a further look of the results show that profitability had more impact on corporate social responsibility (chi-square = 3.48) given the higher level of chi-square of ROA (chi-square = 2.28) on corporate social responsibility model than what was obtained in the case of corporate social responsibility on profitability. The conclusion from these findings is that meaningful feedback did not exist in any direction of causality between corporate social responsibility and profitability, but there is a positive relationship between them.

This study is in line with some studies which suggested that corporate social responsibility is not related to F.P. at all. Platonova, Asutay, Dixon, and Mohammad, (2018) pointed out that there is no reason to anticipate the existence of any relationship between corporate social responsibility and financial performance, with many variables in between the two. On the other hand, the issue of corporate social responsibility measurement may also cover the link between corporate social responsibility and financial performance (Rodriguez-Fernandez, 2016). McWilliams and Siegel (2000) also proved that the relationship between financial performance and corporate social responsibility would disappear with the introduction of more explicit variables (research and development strength) into the economic models.

Table 5: The result of the VAR Granger Causality/Block Exogeneity Wald Tests

VAR Granger Causality/Block Exogeneity Wald Test			
Sample: 2009 2018			
Included observation: 64			
Dependent variable: CSR			
Excluded	Chi-sq	Df	Prob.
ROA	2.278969	2	0.3200
All	2.278968	2	0.3200
Dependent variable: ROA			
Excluded	Chi-sq	Df	Prob.
CSR	3.478796	2	0.1756
All	3.478796	2	0.1756

Source: Analyzed Data, 2019

Table6: The result of the Pairwise Granger Causality Test

Pairwise Granger Causality Tests			
Sample: 2009 2018			
Lag: 2			
Null Hypothesis:	Observations	F-statistic	Prob
ROA does not Granger Cause CSR	64	1.13948	0.3269
CSR does not Granger Cause ROA		1.73940	0.1845

Source: Analyzed Data, 2019

For the robustness of the study, the residual error correlation was tested. The following tests were found appropriate: VAR Residual serial Portmanteau Test for Autocorrelations, VAR Correlation L.M. Tests and VAR Residual Normality.

Portmanteau Autocorrelation Test computes the multivariate Box- Pierce/Lung-Box-Q-statistics (5.854045) and the adjusted Q-statistics (6.682337) for residual serial correlation up to specified order. Both Q-statistics and the adjusted Q-statistics were reported in Table 7. Under the null hypothesis of no serial correlation up to lag h, both statistics are appropriately distributed X^2 with degrees of freedom K^2 (h-p) (Df=4)where p is the VAR lag order.

Table 7: Result of VAR Residual Portmanteau Tests for Autocorrelations

Null hypothesis: no autocorrelations up to lag h
Sample: 2009 2018
Included observations: 24

Lags	Q-Stat	Prob.	Adj Q-Stat.	Prob.	df
1	3.509537	NA*	3. 662126	NA*	NA*
2	4.723326	NA*	4.988258	NA*	NA*
2	4.723326	NA*	4.988258	NA*	NA*
3	4.723326	NA*	4.988258	NA*	NA*
4	4.723326	NA*	4.1A*	NA*	
5	4.723326	NA*	4.988258	NA*	NA*

| 6 | 4.723326 | NA* | 4.988258 | NA* | NA* |
| 7 | 5.854045 | 0.2103 | 6.682337 | 0.1537 | 4 |

*The   test   is   valid   only   for   lags   than   the   VAR   lag   order.
Df is degrees of freedom for the (approximate) chi-square distribution
Source: Analyzed Data, 2019

Vector autoregression Residual Serial Correlation L.M.

Autocorrelation L.M. Test reports the multivariate L.M. test statistics for residual serial correlation up to the specified order. The test statistic for lag order is computed by running an auxiliary regression of the residuals μ_t on the original right-hand regressors and the lagged residual μ_{t-h}. Under the null hypothesis of no serial correlation of order h, the L.M. statistic is asymptotically distributed X^2 with K^2 degrees of freedom. As indicated in Table 8, both tests indicate that the null hypothesis can be rejected, so we can argue that for an LM-stat = 3.032931and a p =0.5523, there are no autocorrelations between the residual errors.

Table 8: The result of the VAR Residual Serial Correlation L.M. Tests

VAR Residual Serial Correlation L.M. Tests		
Null hypothesis: no serial correlation at lag order h		
Sample: 2005 2014		
Included observations: 24		
Lags	LM-Stat	Prob.
1	4.486852	0.3441
2	3.032931	0.5523
Probs from chi-square with 4 df.		

Source: Analyzed Data, 2019

Jarque-Bera residual Normality

Normality Test reports the multivariate extensions of the Jarque-Bera residual normality test, which compares the third and fourth moments of the residuals to those from the normal distribution. In principle, rejection of normal distribution invalidates the test statistics. But measures of skewness are found not to be informative in small samples. In conclusion, the "Unrestricted Vector regression CSR and ROA" model may be considered representative and stable to describe the autoregressive connection between CSR and ROA and vice versa as all the p-value are less than 1% as shown in table 9.

Table 9: The Result of the Jarque-Bera residual normality test.

VAR Residual Normality Tests				
Orthogonalization: Cholesky (Luke)				
Null hypothesis: residuals are multi				
Sample: 200 2018				
Included observations: 24				
Component	Skewness	Chi-sq	Df	Prob
1	0.915063	3.349359	1	0.0672
2	0.460396	0.847859	1	0.3572
Joint		4.197218	2	0.1226

Component	Kurtosis	Chi-sq	Df	Prob.
1	4.062389	1.128671	1	0.2881
2	2.122854	0.769386	1	0.3804
Joint		1.898057	2	0.3871
Component	Jarque-Bera	Df	Prob.	
1	4.478030	2	0.1066	
2	1.617245	2	0. 4455	
Joint	6.095275	4	0.1921	

Source: Analyzed Data, 2019

Generally, there is no doubt that several studies have been conducted so far on CSR with mixed results. Nevertheless, using empirical methods, the direction of causality between CSR and F.P. were investigated. The study used panel data (data covering a ten year period (2009-2018) in eight companies). Findings from this study further revealed that there was no causal relationship between CSR and F.P. Finally, the study concluded that financial performance of quoted Nigerian downstream Oil and Gas industry is determined by other factors other than corporate social responsibility.

Conclusion

The study concluded that there was no causality between is Corporate Social Responsibility and financial performance of quoted Oil and Gas industry in Nigeria and vice versa.

Recommendations and Policy Implication

Based on the findings of this study, the following recommendations are therefore made:

1. There should be intensive public enlightenment and interactions to inform Nigerian oil and gas industries that their duties do not end with profit-making and maximization of shareholder wealth. This will enable the business unit managers to be more aware and conscious of the social needs of their immediate environment and the community at large;

2. Corporate entities should voluntarily integrate both social and environmental upliftment in their business philosophy and operations.

3. The firm should see corporate social responsibilities as social obligations business concerns owe their shareholders, the local (host) community, the public, customers, employees and the government in the course of operating their legitimate businesses, such that CSR should be included in the law and enforced on the firms accordingly.

4. Education of the society on the obligation which companies in their environment owe them, and how to follow up their demand should be encouraged.

5. Awards and recognition should be given to managers and business units that have excelled in their social responsibility performance. They are to make the performance competitive, thereby attracting more managers and corporate organizations.

Contribution to Knowledge

This research makes theoretical and practical contributions to the field of accounting. It will enhance the quality of literature on the direction of causality on corporate social responsibility. This study throws more light and enhances understanding of Corporate Social

Responsibility and its sensitivity to corporate performance in Nigerian quoted Oil and Gas industry.

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