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Corporate Social Responsibility and Financial Performance in 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 10 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, though there exists a positive relationship between them.

Keywords: Corporate social responsibility • Granger causality • Nigeria • Profitability

Introduction

Corporate performance is the achievement of the aims and objectives of an organisation. Like all living organisms, growth is very important in a corporate entity. Any organisation that stops growing is undoubtedly preparing for corporate death. Corporate performance is measured in monetary term, like operating income or profit, Return on Capital Employed (ROCE), Return on Investment (ROI), Return on Assets (ROA), Return on Equity (ROE), Profitability Index (PI), Market Share and so on. Corporate Performance can also be expressed in social or cultural terms like, Customer Satisfaction, Community Performance, Environment Management System, and Employee Relations. Financial Performance has implications on the organisation's survival. The organisation that manages the company's resources effectively and efficiently will be highly reflected by high financial performance, and this, in turn, will contribute to the economic development of the country. Company's performance is essential to management and other stakeholders such as shareholders, debtors, creditors, members of the community and the Government [1].

Corporate Social Responsibility (CSR) means that a company's business model should be socially responsible and environmentally sustainable. By being socially responsible, it means that the company's activities should benefit society, and by environmentally sustainable it means that the activities of the company should not harm the environment. Firms that are practicing CSR activities increase their profitability by boosting their image and develop a competitive advantage in the nearest future. Since the government is notable for solving every problem in the society, business enterprises could play their part in solving many serious social issues, which could be done by developing public, private partnership, improving value chain activities and concern for the environment and natural resources. All these activities lead to financial success in the nearest future. The idea of CSR implies how an organisation can manage its business process to produce an overall positive impact on society. It also means how organisations behave ethically and contribute to the economic development of society by improving the quality of life of the local community and society at large. The CSR is set of standards that the company subscribes to in order to make positive impact on society. It also means how organisations behave ethically and contribute to the economic development of society by improving the quality of life of the local community and society at large [2].

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 phenomenons. While previous studies have failed to provide a consistent framework of the theory that supports prior causal directions between the variables, most studies have examined these relationships by assuming causality running from one direction to the other. In view of the huge expenditures incurred annually on CSR, it is generally held that CSR could increase company profits. But few executives and managers are aware of the research on this important subject. Most executives believe that CSR can improve profits. They understand that CSR can promote respect for their company in the marketplace which can result in higher sales, enhance employee loyalty and attract better personnel to the firm. Also, CSR activities focusing on sustainability issues may lower costs and improve efficiencies as well. 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 [3].

Literatures on corporate social responsibility

The relationship between Corporate Social Relationship (CSR) and financial performance has been a hot debate topic of scholars for a half century. 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 viewpoint for a positive correlation between corporate social responsibility and financial performance suggests that as a company's explicit costs are opposite of the hidden costs of stakeholders, therefore, this viewpoint is proposed from the perspectives of avoiding cost to major stakeholders

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and considering their satisfaction. In addition, this theory further infers that commitment to corporate social responsibility would result in increased costs to competitiveness and decrease the hidden costs of stakeholders. This argument is meaningful and reasonable, as good relationships with employees, suppliers, and customers are necessary for the survival of a company. Some shareholders regard corporate social responsibility as a symbolic management skill; namely, corporate social responsibility is a symbol of reputation, and the company reputation will be improved by actions to support the community, resulting in a positive influence on sales. Therefore, 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 viewpoint for a negative correlation between corporate social responsibility and financial performance suggests that the fulfillment of corporate social responsibility will bring competitive disadvantages to the company methods or need to bear other costs. When carrying out corporate social responsibility activities, increased costs will result in a little gain if measured in economic interests. When neglecting some stakeholders, such as employees or the environment, resulting in a lower corporate social responsibility for the enterprise, the corporate financial performance may be improved. Hence, theory was based on the assumption of a negative correlation between corporate social responsibility and financial performance [4].

Some studies suggested that corporate social responsibility is not related to in any way, financial performance. There is no reason to anticipate the existence of any relationship between corporate social responsibility and financial performance, as there are many variables between the two. On the other hand, the issue of corporate social responsibility measurement may also cover the link between corporate social responsibility and corporate financial performance. The relationship between FP and corporate social responsibility would disappear with the introduction of more accurate variables, such as the research and development strength, into the economic models.

The relationship between environmental factors and business strategy finding a good reason to recommend the establishment of a separate 'strategy and corporate affairs unit' charged with the responsibility of monitoring the environment to align company activities with the former properly. He considered all the environmental factors of economic, technological, socio-cultural and politico-legal without any empirical linkage. He concentrates on the economic environment and employs parametric analysis for empirical linkage. Other researchers have either linked two or more environmental factors with one another explores the relationship between one or more environmental variable G139G (s) with the general performance of an economy [5].

Corporate social responsibility and profitability of Nigerian banks based on the causal relationship by using First Bank of Nigeria Plc as the case study for the period of ten years (2001-2010). Corporate social responsibility was considered as the independent variable, while PAT was the dependent variable. The data collected for the study were analysed by using correlation and regression analysis. The outcome of the research showed a significant positive impact of corporate social responsibility on PAT. The study recommended the need for banks to demonstrate a high level of commitment to corporate social responsibility in order to enhance their profitability in the long run.

Corporate social responsibility spending in the long run provides a better return. Banks in Nigeria should make some investment in corporate social responsibility. It reveals that there is a positive relationship between corporate social responsibility expenditure and banks profitability. So, there is a causal relationship between corporate social responsibility and profitability of the banks. It is due to the fact that cost/expenditure on corporate social responsibility will further reduce the tax paid by banks. It makes the business environment more friendly. The government should monitor organisations investment in social responsibility to avoid misleading in statements to reduce the tax burden [6].

Empirical measure is used to identify the impact of C corporate social responsibility activities on the financial performance of the firm, and they found a positive and significant relationship between these two variables. There is a two way relationship between firm corporate social responsibility activities and its financial performance. They worked on panel data and ran the random effect model, there results suggest a positive relationship between these two variables. The average age of the company is highly correlated with its ranking in regards to its social responsibility. Therefore they control this variable still they found a significant correlation between firm profitability and corporate social responsibility.

Some of the conditions under which companies are likely to embark on corporate social responsibility to include "public and private regulations, the presence of non-governmental and other independent organisations that monitor corporate behavior, institutionalized norms regarding appropriate behavior, associated behavior among corporations themselves, and organized dialogues among Corporations and their stakeholders". Researches on the relationship between corporate social responsibility and the financial performance of companies have shown divergent results. While some showed corporate social responsibility leading to enhanced financial performance, others showed that it was the financial conditions of organisations that determine their Corporate Social Performance [7].

According to a study, a correlation exists between social responsibility and the efficient performance of Croatian Enterprises. The initial point in the empirical section was a dynamic analysis of business activities of Croatian entrepreneurs between 1993 and 2010, on which submission of transparent reports on social responsibility as a basis of which a sample was chosen. The main result obtained by univariate analysis confirms that socially more responsible enterprises have better financial results, i.e. they are more efficient, and also have a better reputation. The conclusion is derived that there is a causal relationship between efficiency and social responsibility, i.e. higher efficiency level enables higher allocation of resources with the purpose of socially more responsible corporate performance, and vice versa; socially responsible corporate performance have an impact on reputation and its improved efficiency.

The causal relationship between corporate social responsibility and profitability of banks in Nigeria case study of First Bank Nigeria Plc. Audited annual reports of the bank for the various years were obtained to source data. The outcome of the regression analysis carried out revealed a positive relationship between corporate social responsibility investments and the profitability of the bank [8].

Although corporate social responsibility promotes accounting expenditure conservatism in the Nigerian banking sector. Empirical evidence of the effect of corporate social responsibility on accounting conservatism among Nigerian deposit money banks. Conservatism in this regard is represented by the ratio of the book value of shares to the market value of share while corporate social responsibility was surrogated by expenditure on societal development, employee welfare and environmental management.

Materials and Methods

Model specification

This study employs the Granger causality test to ascertain causal relationship existence between the two variables, whether a uni-directional or bi-directional (feedback) relationship exists between them and these variables were used to predict each other or not [9].

The Granger's (1969) approach to the question of whether X causes Y is to see how much of the current Y can be explained by past values of Y and then to see whether adding lagged values of X can improve the explanation, Y is said to be Granger-caused by X if X helps in the prediction of Y, or equivalently if the coefficients on the lagged X's are statistically significant. Note that two-way causation is frequently the case; X Granger causes Y and Y Granger causes X.

It is important to note that the statement "X Granger causes Y" does not imply that Y is the effect or the result of X. Granger causality measures precedence and information content but not by itself indicate causality in the more common use of the term.

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

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

Specifically, this research employed the standard Granger-causality test to find out whether past changes in one predictor (say CSR) assists in explaining the current changes in another variable (ROA). However, if the results are opposite, then one concludes that CSR does not Granger-cause ROA. To find out whether causality runs in the opposite direction, i.e., from ROA to CSR, a repeat test will be conducted with ROA, and CSR interchanged. Using Granger causality paradigm, the study expressed causal relationship models as follows:

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

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

Or, equivalently, in matrix form:

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

From equation 3.4 and 3.5 depicted above, ROA and CSR stand for the pair-wise series under consideration and K is the required lag length to be gotten by Akaike (1969)s Final Prediction Error (FPE) criterion. If for example ∑β=0 and ∑Y=0 then CSR does not Granger cause ROA in equation (3.4) and similarly ROA does not Granger cause CSR in equation (3.5). Thus it implies that CSR and ROA other things being equal, are assumed to be independent. The study will carry out pair-wise Granger causality tests among the prediction CSR, the predictor CSR series respectively. Where αt βt dt and Yt are the coefficients of the endogen variables, and the Ɛt and μt are the stochastic error terms [10].

A priori expectation

The expectation is that the higher the Corporate Social Responsibility, the higher the possibility that financial performance will improve. Also, the higher the financial performance, the higher the Corporate Social Responsibility, which means that the expectation is that there will be a causal relationship between Corporate Social Responsibility and financial performance. Therefore, a positive relationship between Corporate Social Responsibility and financial performance is postulated. That is 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:

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

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

Tests for stationarity

An important 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, and thus it is necessary to perform a pre-test to ensure there is a stationary 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 common unit root process), IM, Pesaran and Shin W-stat Augmented Dickey-Fuller test (ADF) and PP–Fisher Chi-square were used [11].

Levin, Lin and Chu's test assume a common 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).

Table 1. The result of the unit root tests.

Test	CSR (p-value)	ROA (p-value)	Remarks
Levin, Lin and Chu	0.00011	0	Stationary
Im, Pesaran and Shin W-stat	0.1224	0	Stationary
ADF-Fisher Chi-square	0.0844	0	Stationary
PP-Fisher Chi-square	0.1021	0	Stationary

Source: Analyzed Data, 2018

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". The table indicates the selected lag from each column criterion by an asterisk"*". However, searching over the lag lengths (KI to K4) and applying information criterion to determine the optimal length of the lag structure. Akaike information criterion, sequential modified LR test statistics Schwarz information criterion, Hannan-Quinn information criterion and final prediction error suggest seven lags (Table 2) [12].

Table 2. The result of the unit root tests.

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-21.45314	NA	0.969407	2.806643	2.85493	2.809116
1	-12.21048	16.1747	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	0.00701	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	2.18066
7	-9.814249	0.492558*	0.599006*	2.226781*	2.613075*	2.246563*
8	-1.304604	7.445939	0.246145	1.266076	1.722657	1.31033

*indicate lag order selected by the criterion
LR: Sequentially modified LR test statistic (each test at 5% level) FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion
Source: Analyzed Data, 2018

Discussion

Vector auto regression estimates

Using the model defined underspecification, the causal nexus between profitability (ROA) and Corporate Social Responsibility (CSR) was examined. The VAR approach was adopted and upon verification of the appropriate lag; it was found that the optimal lag should be 7. The criteria for checking the appropriate optimal lag. The two results are at the optimal level (Tables 3 and 4) [13-16].

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)	0.25061	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	-0.06541
	-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`SC	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 ( ) and 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, 2018	

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, and for a lag equal to 5. The chi-square statistics show 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. 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 shows 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 significant 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 FP at all. There is no reason to anticipate the existence of any relationship between corporate social responsibility and financial performance, as there are many variables 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. The relationship between financial performance and corporate social responsibility would disappear with the introduction of more accurate variables, such as the research and development strength, into the economic models (Tables 5 and 6) [17-19].

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	0.32
All	2.278968	2	0.32
Dependent variable: ROA			
Excluded	**Chi-sq**	**Df**	**Prob.**
CSR	3.478796	2	0.1756
All	3.478796	2	0.1756
Source: Analyzed Data, 2018			

Table 6. 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		1.7394	0.1845
Source: Analyzed Data, 2018			

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 LM Tests and VAR Residual Normality [20].

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. Under the null hypothesis of no serial correlation up to lag h, both statistics are appropriately distributed X2 with degrees of freedom K2 (h-p) (Df=4)where p is the VAR lag order (Table 7).

Table 7. The result of the pairwise granger causality test.

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, 2018

Vector autoregression residual serial correlation LM

Autocorrelation LM Test reports the multivariate LM test statistics for residual serial correlation up to the specified order. The test statistic for lag order H is computed by running an auxiliary regression of the residuals μt on the original right-hand regressors and the lagged residual μt-h. Under the null hypothesis of no serial correlation of order h, the LM statistic is asymptotically distributed X2 with K2 degrees of freedom. 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) [21].

Table 8. The result of the VAR residual serial correlation lm tests.

VAR Residual Serial Correlation LM 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, 2018

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, the 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% (Table 9) [22-24].

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	4.47803	2	0.1066	
2	1.617245	2	0. 4455	
Joint	6.095275	4	0.1921	

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 FP 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 FP. Finally, the study concluded that the financial performance of quoted Nigerian downstream Oil and Gas industry is determined by other factors other than corporate social responsibility [25].

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:

- There should be intensive public enlightenment and organisation of seminars and conferences to make various corporate bodies to be aware that their obligation does 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.
- Corporate entities should voluntarily integrate both social and environmental upliftment in their business philosophy and operations.
- Corporate social responsibilities should be seen by the firm as social obligations business concerns owe their shareholders, the local (host) community, the general 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.

- The society should be educated on this obligation which companies in their environment owe them, and how to follow up their demand.
- 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 organisations.

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.

References

1. Adebayo, RS. "The Impact of Environmental Factors on Strategy Formulation." *Offa Polytech J Business Manag Stud* 1(2005): 70-75.
2. Akinyede, Oyinlola, Morounfoluwa, and Mofoluwaso Iyabode Ojedele. "Effect of Corporate Social Responsibility on Accounting Expenditure Conservatism in the Nigeria Banking Industry." *Pub Facul Manag Soc Sci* 117.
3. Bolanle, Amole Bilqis, Adebiyi SO, and Muyideen AA. "Corporate Social Responsibility and Profitability of Nigeria Banks-A Causal Relationship." *Res J Financ Acc* 3 (2012): 6-17.
4. Aupperle, Kenneth E, Carroll AB, and Hatfield JD. "An Empirical Examination of the Relationship between Corporate Social Responsibility and Profitability." *Aca Manag J* 28 (1985): 446-463.
5. Bolanle, Amole Bilqis, Adebiyi SO, and Muyideen AA. "Corporate Social Responsibility and Profitability of Nigeria Banks-A Causal Relationship." *Res J Finan Acc* 3 (2012): 6-17.
6. Bowman, Edward H, and Mason Haire. "A Strategic Posture Toward Corporate Social Responsibility." California Manag Rev 18 (1975): 49-58.
7. Campbell, John L. "Why Would Corporations Behave in Socially Responsible Ways? An Institutional Theory of Corporate Social Responsibility." *Aca Manag Rev* 32 (2007): 946-967.
8. Cochran, Philip L, and Wood RA. "Corporate Social Responsibility and Financial Performance." *Aca Manag J* 27 (1984): 42-56.
9. Cornell, Bradford, and Shapiro AC. "Corporate Stakeholders and Corporate Finance." *Finan Manag* (1987): 5-14.
10. Merrick DE. "For Whom are Corporate Managers Trustees?" *Harvard Law Rev* 45 (1932): 1145-1163.
11. Friedman, Milton. "The Social Responsibility of Business is to Increase its Profits." *Corpor Ethics Corpor Gov* (2007): 173-178.
12. Gunu, UM. "The Influence of Corporate Social Responsibility on the Performance of Banks: A Case of Zenith Bank PLC." *Usman Danfodio Univ J Manag Stud* 2 (2008): 1-14.
13. Griffin, Jennifer J, and Mahon JF. "The Corporate Social Performance and Corporate Financial Performance Debate: Twenty-Five Years of Incomparable Research." *Business Soc* 36 (1997): 5-31.
14. Idris, A. "Effectiveness of Monetary Policy in Curbing the Rate of Inflation in Nigeria." *Usmanu Danfodio J Manag Stud* 2 (2008): 173-183.
15. Iswatia, Sri, and Anshoria M. "The Influence of Intellectual Capital to Financial Performance at Insurance Companies in Jakarta Stock Exchange (JSE)." Proce 13th Asia Pacific Manag Conf (2007): 1393-1399.
16. Jarrell, Gregg, and Peltzman S. "The Impact of Product Recalls on the Wealth of Sellers." J *Politic Eco* 93 (1985): 512-536.
17. Matten, Dirk, and Moon J. ""Implicit" and "explicit" CSR: A Conceptual Framework for a Comparative Understanding of Corporate Social Responsibility." *Academy Manag Rev* 33 (2008): 404-424.
18. McWilliams, Abagail, and Siegel D. "Corporate Social Responsibility and Financial Performance: Correlation or Misspecification?." *Strategic Manag J* 21 (2000): 603-609.
19. Naser, Kamal, and M. Mokhtar. "Determinants of Corporate Performance of Malaysian Companies." Fourth Asia Pacific Interdisci Res Acc Conf 1 (2004): 16-25.
20. Preston, Lee E, and O'bannon DP. "The Corporate Social-Financial Performance Relationship: A Typology and Analysis." *Business Soc* 36 (1997): 419-429.
21. Rowley, Tim, and Berman S. "A Brand New Brand of Corporate Social Performance." *Business Soc* 39 (2000): 397-418.
22. Ullmann, Arieh A. "Data in Search of a Theory: A Critical Examination of the Relationships Among Social Performance, Social Disclosure, and Economic Performance of us Firms." *Aca Manag Rev* 10 (1985): 540-557.
23. Vitezić, Neda. "Correlation Between Social Responsibility and Efficient Performance in Croatian Enterprises." *Procee Faculty Eco Rijeka Magaz Eco Theory Prac* 29 (2011): 423-442.
24. Waddock, Sandra A, and Graves SB. "The Corporate Social Performance-Financial Performance Link." *Strat Manag J* 18 (1997): 303-319.
25. Walsh, James P, Weber K, and Margolis JD. "Social Issues and Management: Our Lost Cause Found." *J Manag* 29 (2003): 859-881.

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