

# CORPORATE SUSTAINABILITY REPORTING AND CORPORATE FINANCIAL PERFORMANCE OF BREWERY FIRMS QUOTED ON THE NIGERIAN STOCK EXCHANGE

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## **ABSTRACT**

*The study examined the effect of Corporate Sustainability Reporting on Financial Performance of brewery firms quoted on the Nigeria Stock Exchange (NSE). The objective was to determine the effect of Corporate Sustainability Reporting measured by the variables in the Global Reporting Initiative (GRI) Standards on Return on Equity, Tobin's Q and Asset Growth of brewery firms quoted on the NSE. Ex-post facto research design was adopted. The population of the study comprised the entire five brewery firms quoted on the NSE as at December 2018. The study sampled the entire five firms. Secondary data obtained from the selected firms' annual reports were used. Descriptive statistics and regression analysis were employed in data analysis. Findings revealed that Corporate Sustainability Reporting has significant effect on Return on Equity and Tobin's Q of brewery firms quoted on the Nigerian Stock Exchange but has no significant effect on asset growth of the brewery firms. The researchers recommended that the Financial Reporting Council of Nigeria should consider*

*making sustainability reporting compulsory for all Nigerian quoted firms as this will help in assessing the corporate governance quality as well as strategic management of firms to sustainable future thereby achieving the benefits relating to sustainability reporting.*

**Keywords:** Corporate Sustainability Reporting, Corporate Financial Performance, Global Reporting Initiative (GRI), Quoted Brewery Firms.

## **INTRODUCTION**

Sustainability reporting is a means through which a company provides information on its efficiency in non-financial issues relating to social, environmental and economic effectiveness. Companies use sustainability to measure the quality of their organizations' corporate governance and strategic management towards sustaining the future. In Nigeria, the practice of sustainability reporting is not compulsory because the Financial Reporting Council (FRC) of Nigeria is yet to issue/enforce a guideline on

how firms should measure and disclose their sustainability performance. Consequently, most of the Nigerian firms are yet to actualize the benefits associated with sustainability reporting. The need for making sustainability reporting a priority for corporate business organizations is as a result of sustainability challenges faced by firms in terms of financial, governance, social and environmental emergency which have never been seen before. Furthermore the globalization of world economies and the need to satisfy the demands of the global and domestic investors, customers and other stakeholders have made corporate sustainability reporting very important for corporate businesses. Currently, companies are increasingly faced with the challenge of expanding and enlarging their financial reporting to comprise making profits as well as social efforts made towards improving the environment.

### **Objectives of the Study**

The main objective of the study is to determine the effect of corporate sustainability reporting on financial performance of brewery firms quoted on the Nigerian Stock Exchange. The study specifically addressed the following objectives:

- i. Determine the effect of Corporate Sustainability Reporting on Return on Equity of brewery firms quoted on the Nigerian Stock Exchange
- ii. Ascertain the effect of Corporate Sustainability Reporting on Tobin's Q of brewery firms quoted on the Nigerian Stock Exchange
- iii. Find out the effect of Corporate Sustainability Reporting on Asset Growth of brewery firms quoted on the Nigerian Stock Exchange

### **Research Hypotheses**

The following null hypotheses were formulated to guide the study:

1. Corporate Sustainability Reporting has no significant effect on Return on Equity of

brewery firms quoted on the Nigerian Stock Exchange

2. Corporate Sustainability Reporting has no significant effect on Tobin's Q of brewery firms quoted on the Nigerian Stock Exchange
3. Corporate Sustainability Reporting has no significant effect on Asset Growth of brewery firms quoted on the Nigerian Stock Exchange

## **REVIEW OF RELATED LITERATURE**

### **Conceptual Review**

#### ***Corporate Sustainability Reporting (CSR)***

Corporate sustainability as defined by the World Business Council for Sustainability Development (2002) is the commitment of business to contribute to sustainable economic development, and to work with employees, their families, the local community and society at large to improve their quality of life. Sustainability Reporting is therefore defined according to Global Reporting Initiative - GRI (2011) as the practice of measuring, disclosing and being accountable to internal and external stakeholders for organizational performance towards the goal of sustainability. Aggarwal (2013) stated that sustainability reports are published by firms to provide a description of their triple bottom line performance and to show the commitment of firms towards its diverse stakeholders. Sustainability reporting is the practice of being accountable to the company's stakeholders (both internal and external) by measuring and disclosing the performance of the organization in relation to the sustainable development goal (Muhammadu, 2014). Sustainability reporting also known as Triple Bottom Line accounting is made up of three P's viz: Profit, People and Planet. It measures and reports on the financial, social and environmental performance of the business entity over a period of time (Nnamani, Onyekwelu and Ugwu, 2017). Several initiatives are established to encourage sustainability development globally. One of the initiatives is the United Nations Global Compact

(UNGC) on Global Reporting Initiative (GRI) which was established in 2000 to provide guideline for sustainability reporting. Nigeria adopted this United Nations Global Compact (UNGC) which encourages companies to voluntarily hold ten principles covering areas of labour, human-rights, environment and anti-corruption in its strategy, culture and operations. Firms participate in the ten principles by reporting through what is known as “communication progress” on annual basis.

### **Theoretical Framework**

This study was based on Stakeholder’s theory propounded by Richard Edward Freeman in 1984. The theory posits that stakeholders expect companies to be socially and environmentally responsible because there is a market premium in improved social and environmental performance. The theory insists that the success of companies depend on the companies moving beyond maximizing the shareholders wealth to taking action which satisfy the interests of other stakeholder such as customers, government, employees, trade unions, suppliers, host communities, the media, regulatory authorities and so on. Firms function in social environment which is made of various stakeholders and if they fail to operate in line with the expectations of the stakeholders or in a way that is considered legitimate by them this might pose a threat to the survival of the companies.

### **Corporate Sustainability Reporting and Corporate Financial Performance**

The study by Kapoor and Sandhu (2010) found a significant impact of sustainability on Return on Sales (ROS), Return on Assets (ROA) and Return on Equity (ROE) but insignificant impact on growth. Bartlett (2012) stated that a positive relationship may exist between corporate sustainability reporting and firm value because firms that reports on sustainability initiatives at a high quality may attract more investors and increased market value. Equally, Ameer and Othman (2012) found out that firms that

emphasizes on sustainability practices have higher financial performance measured by Profit before Tax (PBT), Return on Assets (ROA) and cash flow from operating activities when compared with firm without sustainability practices. Ghosh (2012) found out that companies which are large in size, have less leverage, are business group affiliated, have higher R&D and advertisement expenses, and are operating in environmentally sensitive industries are likely to be superior in sustainability. Such superior sustainability performance leads to superior financial performance, captured through multiple measures of ROA, ROE and Tobin’s Q. Siew, Balatbat and Carmichael (2013) found no strong correlation between financial performance and Environmental, Social and Governance (ESG) scores. While construction companies issuing non-financial reports largely outperform those which do not in a number of selected financial ratios, the correlation between financial performance and extent of non-financial practices as measured by ESG scores of construction companies is not strong. Pan, Sha, Zhang and Ke (2014) discovered that sustainability had significant effects on ROA, ROE & EPS and had no significant impact on the growth rate of net assets. Similarly, Ching, Gerab and Toste (2017) found no association between accounting and market based variables and the reporting quality, and although the quality of disclosure is improving throughout the years studied, the scores are still very low.

### **Global Reporting Initiative (GRI) and Sustainability Reporting**

The Global Reporting Initiative (GRI) standards are the first global standards for sustainability reporting. They feature a modular, interrelated structure and represent the global best practice for reporting on a range of Economic, Environmental and Social impacts. Sustainability reporting is an organization’s practice of reporting publicly on its economic, environmental and social inputs. GRI standards represent global best practice in sustainability reporting. They are designed to be used as a set by organizations

that want to report about their impacts and how they contribute towards sustainability development. The GRI standards are also a trusted reference for policy makers and regulators worldwide. They encourage and enable credible non-financial reporting by companies under their jurisdiction.

### **Empirical Review**

Nnamani and Onyekwelu (2017) studied the effect of sustainability accounting and reporting on financial performance of firms in Nigeria Brewery sector. The study adopted ex post facto research design. Secondary data were used which were obtained from the Nigerian brewery industry. Three listed and major brewery firms in Nigeria were sampled due to their domination of the brewery sector over years which ensure availability of data. The study covered a period of 5 years from 2010-2014. Data were analyzed using Ordinary Linear Regression (OLR). The paper revealed that Total equity to Total Assets (TETA) ratio has no significant effect on Return on Assets (ROA) of firms on the brewery sector. Furthermore, Total Personal Cost to Turnover (TPCT) ratio has no positive relationship with ROA of firms in the brewery sector. Based on the findings the study recommended that firms in Nigeria should invest reasonable amount of their earnings on sustainability activities while specific accounting templates be articulated by professional accounting regulating bodies to guide firms' reporting on sustainability activities. The financial reporting council of Nigeria and others alike should make sustainability reporting compulsory while adequate sanctions are spelt out and enforced on defaulting organizations to serve as deterrent.

The relationship between corporate sustainability reporting and profitability and shareholders fund in Nigerian Banks was carried out by Nwobu (2015). The objective of the study was to empirically assess the relationship between sustainability reports, profitability and shareholders fund. Content analysis methodology was employed. Data

were extracted from the annual reports of banks. The population comprised 15 business organizations in the banking sector of NSE. Eight banks were selected to represent the same size and the study covered 4 years from 2010-2013. Results of the study showed that sustainability has received substantial attention over the past four years in the Nigerian banking sector. The study found a small positive correlation of 0.28 between sustainability reporting index and Profit After Tax (PAT). It also found a small positive correlation of 0.18 between sustainability reporting index and shareholders fund.

Sustainability reporting among Nigeria Food and Beverage firms was studied by Muhammad (2014). The study aimed at assessing sustainability reporting among food and beverage firms in Nigeria. A sample of 6 firms was randomly selected from the companies quoted on the NSE which represents 50% sample. Secondary data was used which were obtained from the annual reports and accounts of the sampled companies for cross sectional analysis. Sustainability reporting of firms was measured using content analysis and regression analysis was used to determine the predictors of the disclosure. Results of the analysis revealed that firms exhibited some level of sustainability reporting though not significant because it only comprised approximately 2% of the annual reports total disclosures. Disclosures are determined by the size of firms and it tends to vary inversely with the size of the firms.

Kusuma and Koesrindartoto (2014) studied sustainability practices and financial performance: an empirical evidence from Indonesia. The purpose of the study was to find the correlation between sustainability practices and financial performance in Indonesia companies. Environmental, Social and Governance indicators were used to measure the level of sustainability practices while financial ratios were used to measure financial performance. Findings showed that majority of the companies have good level in

sustainability disclosure. Findings also showed that only small number of companies have poor level in sustainability. The study recommended that government should design the guideline for sustainability disclosure such as Financial Service Council (FSC) and ACSI-Austrian Council of Super Investors.

Corporate sustainability and corporate financial performance: The Indian Context was carried out by Ghosh (2013). The study examined the company specific characteristics that drive companies in India to superior sustainability performance and reporting as proxied by their presence in a new sustainability index introduced in India in 2008, such as ESG, S&P India Index. The study was conceptualized in India and the sample comprised top 200 National Stock Exchange companies as at 31<sup>st</sup> March 2012 by market capitalization. Results showed that the companies which are large in size, have less leverage, are business group affiliated, have higher R&D and advertisement expenses, and are operating in environmentally sensitive industries are likely to be superior in sustainability.

Aggarwal (2013) studied sustainability reporting and its impact on corporate financial performance: A literature review. The paper examined the impact of sustainability reporting on corporate financial performance through review of extant literature. The study considered various researches conducted over the last decade for examining the relationship. It was found that the results were inconsistent, mixed and often contradictory ranging from positive to negative to statistically insignificant relationship, depending on the choice of measure of sustainability reporting, measure of financial performance, sample composition, time-period and control variables. The paper observed that most of the studies suggested positive relationship. The researcher recommended that companies should adopt sustainability reporting as early as possible to avoid regulatory actions in future. Firms should also get their

sustainability reports to be externally assured from credible assurance providers like KPMG, EY etc to establish their image as a credible reporter in the perception of stakeholders.

The effect of corporate sustainability reporting on firm valuation was carried out by Bartlett (2012). The study used data from the Roberts Environmental Center at Claremont Mckenna College. Sustainability Pacific Scoring Index (SPSI) scores from 2008 and 2009 were analyzed for 10 various industries, from the metal sector to pharmaceutical industry. The financial data for 62 companies being analyzed were obtained from the Wharton Research Data Services (WRDS) COMPUSTAT database. The data spanned across 5 years, from 2006 to 2010. Findings showed that book value and net income are both statistically significant at the 1% level in every regression.

Asaolu, Agboola, Ayoola and Salawu (2011) researched on sustainability reporting in the Nigerian Oil and Gas Sector. The purpose was to assess the current level of sustainability reporting in line with international best practices. Six major oil and gas multinationals operating in Nigeria were sampled. Data were sourced through content analysis of annual reports (global and local), stand-alone sustainability reporting and other triple-line reporting publications. Findings showed that all surveyed multinational fared well under the organizational profiles, strategy, reports and governance criterion with the exception of governance. In the environmental performance indicators criterion, all surveyed companies reported environmental performance indicators in general terms in their global reports but their local affiliates did not make any reports on their environmental performance. Based on the findings, the paper recommended a mandatory localized sustainability reporting framework in line with international best practices practiced in countries like France, Germany and South Africa for companies operating in the Oil and Gas Sector of the

economy in view of the criticality of the sector to the economic wellbeing of the Nigerian state since multinationals operating in the Nigerian oil and gas sector have not been adhering to international practices on the issue of sustainability reporting.

### Gap in the Literature

Studies on corporate sustainability reporting have gained wider coverage by researchers both in Nigeria and Diaspora. Some of these studies in Nigeria were focused on a good number of sectors and they differ clearly from this study. However, to the best of our knowledge, these studies did not use any of the variables in GRI standards to proxy corporate sustainability reporting. This is very important as accounting is quantitative and non-financial data cannot to be used to measure or compare financial data. Furthermore, to the best of the researchers' knowledge, most of the studies used only profitability performance as a determinant/measurement of firm performance and failed to use other financial performance measures which are growth and market value. These other two determinants need not be excluded in assessing financial performance as the objective of a firm is to maximize shareholders wealth and investors are satisfied through superior financial performance represented by these quantitative measures of firm performance involving profitability, market value and growth.

### METHODOLOGY

The study employed *ex-post facto* research design. It covered a period of 5 years from 2014-2018. 2019 was not included because as at the time of the study, some of the companies have not uploaded their audited annual reports due to the lockdown associated with COVID 19 pandemic. Population of the study comprised all the five brewery firms quoted on the Nigerian Stock Exchange (NSE) as at December 2018. Complete census was used, hence the entire population formed the sample size of the study. Descriptive statistics and multiple regression analysis were the techniques employed in

data analysis. The study adopted multiple measures of financial performance involving profitability, market value and growth. These financial performance determinants are quantitative measurements and represent the best interest of the investors as they (investors) are satisfied through superior financial performance involving profitability performance, market value performance and growth performance. Three proxies respectively selected from these financial performance measurements are ROE, Tobin's Q and Asset Growth. In measuring corporate sustainability reporting, the study adopted six variables of Global Reporting Initiatives (GRI) standard on sustainability reporting representing Economic Performance, Environmental issues and Social issues. Under Economic Performance – GRI 201, Direct Economic Value Generated and Distributed (DEVGD) Disclosure 201-1 and Financial Assistance Received from Government (FARG) Disclosure 201- 4 were selected. Under Environmental - GRI 300, Environmental Protection Expenditure (EPE) found under Effluents and Waste GRI 306 but clearly specified under Glossary Standard and Environmental Compliance (EC) GRI 307 measured using Disclosure 307-1 Non-Compliance with Environmental Laws and Regulations (NCELR) were selected. Under Social – GRI 400: Employment – GRI 401 measured using Disclosure 401-2 Benefits provided to Full Time Employees (BFTE) and Social Economic Compliance (SEC) - GRI 419 measured using Disclosure 419-1 Non-Compliance with Laws and Regulations in the Social and Economic Area were selected.

### Model Specification

The researchers developed one main model for examining the effect of corporate sustainability reporting on corporate financial performance of brewery firms quoted on the NSE as shown below:

$$Y = \alpha_0 + \beta_1X + \beta_2X + \dots + \beta_nX + \epsilon \dots \dots \dots \text{equation (1)}$$

Where:

Y = Dependent Variable

$\alpha$  = Intercept  
 $\beta$  = Explanatory Variable  
 $\beta X$  = Independent Variable  
 $\varepsilon$  = Error term

The above main model is further represented in the following econometric models:

$$\text{ROE} = \alpha + \beta_1 \text{NL\_DEVG} + \beta_2 \text{NL\_DEVD} + \beta_3 \text{NL\_FARG} + \beta_4 \text{EPE} + \beta_5 \text{NCELRL} + \beta_6 \text{NL\_BFTE} + \beta_7 \text{NCLR} + \varepsilon \dots \dots \dots \text{equation (2)}$$

$$\text{Tobin's Q} = \alpha + \beta_1 \text{NL\_DEVG} + \beta_2 \text{NL\_DEVD} + \beta_3 \text{NL\_FARG} + \beta_4 \text{EPE} + \beta_5 \text{NCELRL} + \beta_6 \text{NL\_BFTE} + \beta_7 \text{NCLR} + \varepsilon \dots \dots \dots \text{equation (3)}$$

$$\text{Asset Growth} = \alpha + \beta_1 \text{NL\_DEVG} + \beta_2 \text{NL\_DEVD} + \beta_3 \text{NL\_FARG} + \beta_4 \text{EPE} + \beta_5 \text{NCELRL} + \beta_6 \text{NL\_BFTE} + \beta_7 \text{NCLR} + \varepsilon \dots \dots \dots \text{equation (4)}$$

Where:

ROE= Return on Equity

NL\_DEVG = Logarithmic transformation of direct economic value generated

NL\_DEVD = Logarithmic transformation of direct economic value distributed

NL\_FARG = Logarithmic transformation of financial assistance received from government

EPE = Environmental Protection Expenditure

NCELRL = Non-Compliance with Environmental Laws and Regulations

NL\_BFTE = Logarithmic transformation of Benefits provided to Full Time Employees

NCLR = Non-Compliance with Laws and Regulations in the social and economic area.

**Table Measurements of Variables**

**1 Variables Measurements**

VARIABLE	ACRONYM	MEASUREMENT
<b>INDEPENDENT VARIABLE:</b>		
<b>1) Economic Performance GRI 201</b>		
a) Direct Economic Value Generated and Distributed (DEVGD) separated into:	NL_DEVGD	DEVG + DEVD
i) Direct Economic Value Generated. (i.e. Revenue) Disclosure 201- 1	NL_DEVG	Revenue is calculated as the logarithmic transformation of net sales plus revenues from financial investments and sale of assets. Net sales can be calculated as gross sales from products and services minus returns, discounts and allowances
ii) Direct Economic Value Distributed. Disclosure 201- 1	NL_DEVD	Direct Economic Value Distributed is calculated as the logarithmic transformation of operating costs, employee wages & benefits, payments to providers of capital, payments to government by country, and community investments. Note: Employee wages & benefits is calculated as total payroll (including employees salaries and amounts paid to government institutions on behalf of employees) plus total benefits (excluding training, costs of protection equipment or other costs items directly related to the employee's job function)

b) Financial Assistance Received from Government	NL_FARG	Financial Assistance Received from Government is measured as the logarithmic transformation of tax relief & tax credits, subsidies, awards, royalty holidays, financial assistance from Export Credit Agencies (ECAs), financial incentives, other financial benefits received or receivable from any government for any operation, investment grants, research and development grants, and other relevant types of grants.
<b>2) Environmental GRI 300</b>		
a) Environmental Protection Expenditure	EPE	Environmental Protection Expenditure is calculated as expenditures on disposal, treatment, sanitation, and clean up. It also includes expenditure to prevent, reduce, control, and document environmental aspects, impacts and hazards.
b) Environmental Compliance GRI 307:	EC	
Non-Compliance with Environmental Laws and Regulations in the social and economic area. Disclosure 307-1	NCELR	Non-Compliance with environmental laws and regulations is measured as: (a) Total monetary value of significant fines for non-compliance with environmental laws and /or regulations, and (b) Total number of non-monetary sanctions. NOTE: NCELR is represented with disclosure score
<b>3) SOCIAL GRI 400:</b>		
a) Employment GRI 401:		
Benefits provided to Full Time Employees. Disclosure 401- 2	NL_BFTE	BFTE is measured as the logarithmic transformation of Life insurance, health care, disability & invalidity coverage, parental leave (parental leave is the leave granted to men & women employee on the grounds of the birth of a child), retirement provisions, stock ownership.
b) Socio Economic Compliance GRI 419:	SEC	
Non-Compliance with Laws and Regulations in the social and economic area. Disclosure 419 – 2	NCLR	Noncompliance with laws and regulations in the social and economic area is measured as (a) Total monetary value of significant fines in the social and economic area, and (b) Total number of non-monetary sanctions. NOTE: NCLR is represented with disclosure score.
<b>DEPENDENT VARIABLE</b>		
Return on Equity	ROE	Percentage of net income to total equity OR $\frac{\text{Profit after tax and preference dividends}}{\text{Ordinary Shares} + \text{reserves}} \times 100\%$
Tobin's Q		$\frac{\text{Total Assets} + \text{Market Capitalization} - \text{Net worth}}{\text{Total Assets}}$
Asset Growth		$\frac{\text{Current year Assets} - \text{Previous year Assets}}{\text{Previous year Assets}}$

Researchers' Compilation (2020)

## DATA PRESENTATION AND ANALYSIS

### Descriptive Statistics

#### *Univariate Properties of Data*

The univariate properties of the data, i.e., mean, median, minimum, maximum, standard

deviation, skewness and kurtosis are presented below:

Table 2: Summary Statistics of Independent Variables

	DEVD	DEVG	EPE	FARG	BFTE	NCELR	NCLR
<b>Mean</b>	1.75E+10	8.53E+10	1.240000	1.02E+08	2.93E+09	0.240000	0.360000
<b>Median</b>	5.02E+09	2.33E+10	1.000000	0.000000	3.56E+08	0.000000	0.000000
<b>Maximum</b>	7.03E+10	3.14E+11	3.000000	1.01E+09	1.61E+10	1.000000	1.000000
<b>Minimum</b>	0.000000	3.00E+09	0.000000	0.000000	0.000000	0.000000	0.000000
<b>Std. Dev.</b>	2.38E+10	1.07E+11	1.090871	2.59E+08	4.98E+09	0.435890	0.489898
<b>Skewness</b>	1.312544	1.035049	0.690930	2.659825	1.575923	1.217562	0.583333
<b>Kurtosis</b>	3.170185	2.664037	2.200610	8.908537	3.850193	2.482456	1.340278
<b>Jarque-Bera</b>	7.208387	4.581436	2.654752	65.84322	11.10100	6.455913	4.287280
<b>Probability</b>	0.027209	0.101194	0.265172	0.000000	0.003886	0.039638	0.117227
<b>Sum</b>	4.37E+11	2.13E+12	31.00000	2.56E+09	7.31E+10	6.000000	9.000000
<b>Sum Sq. Dev.</b>	1.36E+22	2.73E+23	28.56000	1.61E+18	5.96E+20	4.560000	5.760000
<b>Observations</b>	25	25	25	25	25	25	25

Source: E-Views Ver. 9.0

Table 2 presents the descriptive statistics of the independent variables of the study with key sustainability variables being DEVD, DEVG and EPE. The mean direct economic value distributed is approximately 17.5 billion naira which means that the average amount of direct economic value distributed within the sampled Breweries is ₦17,500,000,000 Billion. The minimum amount is 0.00 and the maximum amount of direct economic value distributed within the sampled Breweries is ₦70,300,000,000. The mean direct economic value generated is approximately 85.3 billion

naira which means that the average amount of direct economic value generated within the sampled Breweries is ₦85,300,000,000 Billion. The minimum amount is 3 billion naira and the maximum amount of economic value generated within the sampled Breweries is ₦314,000,000,000 Billion. Also from the table, the mean environmental protection expenditure disclosure score is approximately 1.24 with a maximum of 3 and a minimum of 0(zero). This entails that Breweries on the average observe environmental protection practices.

### Multivariate Properties of Data

Table 3: Correlation Matrix of Independent Variables

	DEVD	DEVG	EPE	FARG	NCELR	NCLR	BFTE
<b>DEVD</b>	1.000000	0.894727	-0.113178	-0.196139	-0.127898	-0.099374	0.939816
<b>DEVG</b>	0.894727	1.000000	-0.051578	-0.165028	-0.324647	-0.274345	0.849682
<b>EPE</b>	-0.113178	-0.051578	1.000000	0.399321	-0.651946	-0.636209	-0.196376
<b>FARG</b>	-0.196139	-0.165028	0.399321	1.000000	-0.109380	-0.198127	-0.197539
<b>NCELR</b>	-0.127898	-0.324647	-0.651946	-0.109380	1.000000	0.749269	-0.077887
<b>NCLR</b>	-0.099374	-0.274345	-0.636209	-0.198127	0.749269	1.000000	-0.031406
<b>BFTE</b>	0.939816	0.849682	-0.196376	-0.197539	-0.077887	-0.031406	1.000000

Source: E-Views Ver. 9.0

Table 3 presents the correlation matrix of the independent variables of the study. There is a positive relationship between DEVD, DEVG

and BFTE. However, a negative association exists between EPE, FARG, NCELR and NCLR.

**TEST OF HYPOTHESES**

brewery firms quoted on the Nigerian Stock Exchange

**Test of Hypothesis one**

H<sub>1</sub> Corporate Sustainability Reporting has no significant effect on Return on Equity of

**Table 4a-d: Multiple Regression**

Variables Entered/Removed <sup>a</sup>			
Model	Variables Entered	Variables Removed	Method
1	NL_DEVG, NL_FARG, EPE , NL_DEVD, NCLR, NCELR, NL_BFTE <sup>b</sup>	.	Enter

**a. Dependent Variable: ROE**  
**b. All requested variables entered.**

Table 4b

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.749 <sup>a</sup>	.561	.380	.06553881

**a. Predictors: (Constant), NL\_DEVG, NL\_FARG, EPE , NL\_DEVD, NCLR, NCELR, NL\_BFTE**

Table 4c

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.093	7	.013	3.098	.027 <sup>b</sup>
	Residual	.073	17	.004		
	Total	.166	24			

**a. Dependent Variable: ROE**  
**b. Predictors: (Constant), NL\_DEVG, NL\_FARG, EPE , NL\_DEVD, NCLR, NCELR, NL\_BFTE**

Table 4d

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	-.555	.238		-2.334	.032
	NCLR	.018	.046	.107	.395	.698
	NCELR	.042	.053	.220	.790	.441
	EPE	.035	.019	.453	1.858	.081
	NL_FARG	-.010	.004	-.466	-2.540	.021
	NL_BFTE	-.027	.010	-.980	-2.579	.019
	NL_DEVD	.027	.008	1.228	3.476	.003
	NL_DEVG	.052	.024	.495	2.188	.043

**a. Dependent Variable: ROE**

Source: SPSS Ver. 23

Multiple regression was conducted to test if corporate sustainability reporting has significant effect on return on equity of brewery firms quoted on the Nigerian Stock Exchange. The results of the multiple regression indicated that the predictor explained 56.1% of the variance ( $R^2=.561$ ,  $F(3.098) = 3.10$ ,  $p = 0.027$ ; i.e.  $<.05$ ). An individual study of the variables in hypothesis one revealed from table 4d that the coefficient of NCLR, NCELR, EPE, NL\_DEVD and NL\_DEVG is positive while NL\_FARG and NL\_BFTE is negative. NCLR and NCELR are not statistically significant at 5% and 10% significance level ( $p = 0.698, 0.441 >.05$ ). However, EPE is significant at 10% significance level ( $p = 0.081 >.05$ ). The table

also revealed that NL\_FARG, NL\_BFTE, NL\_DEVD and NL\_DEVG are statistically significant at 5% and 10% significance level ( $p = 0.021, 0.019, 0.003, 0.043 <.05$ ). Summarily, the ANOVA table revealed that  $p = 0.027$ ; i.e.  $<.05$ . Hence, the null hypothesis is rejected and the alternate accepted; thus, 'Corporate sustainability reporting has a significant effect on return on equity of brewery firms quoted on the Nigerian Stock Exchange.'

**Test of Hypothesis two**

**H<sub>2</sub>** Corporate Sustainability Reporting has no significant effect on Tobin's Q of brewery firms quoted on the Nigerian Stock Exchange.

**Table 5a-d: Multiple Regression**

Variables Entered/Removed <sup>a</sup>			
Model	Variables Entered	Variables Removed	Method
1	NL_DEVG, NL_FARG, EPE, NL_DEVD, NCLR, NCELR, NL_BFTE <sup>b</sup>		Enter

**a. Dependent Variable: Tobin's Q**  
**b. All requested variables entered.**

Table 5b

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.762 <sup>a</sup>	.580	.407	.19548023

**a. Predictors: (Constant), NL\_DEVG, NL\_FARG, EPE, NL\_DEVD, NCLR, NCELR, NL\_BFTE**

Table 5c

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.898	7	.128	3.356	.020 <sup>b</sup>
	Residual	.650	17	.038		
	Total	1.547	24			

**a. Dependent Variable: Tobin's Q**  
**b. Predictors: (Constant), NL\_DEVG, NL\_FARG, EPE, NL\_DEVD, NCLR, NCELR, NL\_BFTE**

Table 5d

Model	Coefficients <sup>a</sup>					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-1.443	.709		-2.036	.058
	NCLR	.005	.138	.010	.038	.970
	NCELR	.231	.158	.397	1.459	.163
	EPE	.207	.055	.889	3.730	.002
	NL_FARG	-.024	.012	-.362	-2.019	.059
	NL_BFTE	-.052	.031	-.624	-1.680	.111
	NL_DEVD	.053	.023	.782	2.264	.037
	NL_DEVG	.132	.071	.412	1.863	.080

**a. Dependent Variable: Tobin's Q**

Source: SPSS Ver. 23

The results of the multiple regression indicated that the predictor explained 58.0% of the variance ( $R^2=.580$ ,  $F(3.356) = 3.36$ ,  $p = 0.020$ ; i.e.  $<.05$ ). An individual study of the variables in hypothesis two revealed from table 5d that the coefficient of NCLR, NCELR, EPE, NL\_DEVD, NL\_DEVG and NL\_BFTE is positive while NL\_FARG and NL\_BFTE is negative. NCLR and NCELR are not statistically significant at 5% and 10% significance level ( $p = 0.970$ ,  $0.163$  and  $0.111 >.05$ ). However, NL\_FARG and NL\_DEVG are significant at 10% significance level ( $p = 0.059$ ,  $0.80 >.05$ ). The table also revealed that NL\_DEVD and EPE are statistically

significant at 5% significance level ( $p = 0.037$ ,  $0.002 <.05$ ). Summarily, the ANOVA table revealed that  $p = 0.020$ ; i.e.  $<.05$ . Hence, the null hypothesis is rejected and the alternate accepted; thus, 'Corporate sustainability reporting has a significant effect on Tobin's Q of brewery firms quoted on the Nigerian Stock Exchange.'

**Test of Hypothesis three**

**H<sub>3</sub>** Corporate sustainability reporting has no significant effect on asset growth of brewery firms quoted on the Nigerian Stock Exchange.

Table 6a-d: Multiple Regression

Model	Variables Entered/Removed <sup>a</sup>		Method
	Variables Entered	Variables Removed	
1	NL_DEVG, NL_FARG, EPE, NL_DEVD, NCLR, NCELR, NL_BFTE <sup>b</sup>		Enter

**a. Dependent Variable: Asset growth**  
**b. All requested variables entered.**

Table 6b

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.632 <sup>a</sup>	.399	.152	1.89624722

**a. Predictors: (Constant), NL\_DEVG, NL\_FARG, EPE, NL\_DEVD, NCLR, NCELR, NL\_BFTE**

Table 6c

		ANOVA <sup>a</sup>				
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	40.667	7	5.810	1.616	.198 <sup>b</sup>
	Residual	61.128	17	3.596		
	Total	101.794	24			

**a. Dependent Variable: Asset growth**  
**b. Predictors: (Constant), NL\_DEVG, NL\_FARG, EPE, NL\_DEVD, NCLR, NCELR, NL\_BFTE**

Table 6d

		Coefficients <sup>a</sup>				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.556	6.877		1.826	.086
	NCLR	-1.738	1.337	-.413	-1.300	.211
	NCELR	.024	1.537	.005	.015	.988
	EPE	-.282	.538	-.149	-.524	.607
	NL_FARG	-.052	.118	-.096	-.445	.662
	NL_BFTE	.756	.300	1.119	2.520	.022
	NL_DEVD	-.546	.227	-.993	-2.405	.028
	NL_DEVG	-1.178	.688	-.453	-1.713	.105

**a. Dependent Variable: Asset growth**

Source: SPSS Ver. 23

The results of the multiple regression indicated that the predictor explained only 39.9% of the variance ( $R^2=0.399$ ,  $F(1.616) = 1.62$ ,  $p = 0.198$ ; i.e.  $>.05$ ). An individual study of the variables in hypothesis three revealed from table 6d that the coefficient of NCELR and NL\_BFTE is positive while NCLR, EPE, NL\_FARG, NL\_DEVD and NL\_DEVG is negative. The table also revealed that only NL\_BFTE and NL\_DEVD are statistically significant at 5% significance level ( $p = 0.022$ ,  $0.028 <.05$ ). The ANOVA table revealed summarily that  $p = 0.198$ ; i.e.  $>.05$ . Hence, the null hypothesis is accepted; thus, 'Corporate sustainability reporting has no significant effect on asset growth of brewery firms quoted on the Nigerian Stock Exchange.'

## SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

### Summary of Findings

The results of the analysis revealed the following:

1. Corporate sustainability reporting has a significant effect on return on equity of brewery firms quoted on the Nigerian Stock Exchange at 5% level of significance.
2. Corporate sustainability reporting has a significant effect on Tobin's Q of brewery firms quoted on the Nigerian Stock Exchange at 5% level of significance.
3. Corporate sustainability reporting has no significant effect on asset growth of brewery firms quoted on the Nigerian Stock Exchange at 5% level of significance.

### Conclusion and Recommendation

The researchers concluded that Corporate Sustainability Reporting has significant effect on return on equity and Tobin's Q of brewery firms quoted on the Nigerian Stock Exchange. However its effect on asset growth

of the brewery firms is not significant. The study based on the findings recommended that Nigeria through the Financial Reporting Council (FRC) should consider joining global business communities that are practicing sustainability reporting by making the practice of sustainability reporting compulsory for all Nigerian quoted firms as this will help in assessing the corporate governance quality as well as strategic management of firms to sustainable future thereby achieving the benefits relating to sustainability reporting.

### **Contribution to Knowledge**

The study enriched the accounting literature on Corporate Sustainability Reporting (CSR). To the best of the researchers' knowledge, it is the first study in Nigeria on Corporate Sustainability Reporting that narrowed CSR to be represented by the variables in the GRI standards. It also used multidimensional models of profitability, growth and market value performances for measuring corporate financial performance which have not been used in Corporate Sustainability Reporting studies in Nigeria.

### **REFERENCES**

Aggarwal, P. (2013). Sustainability Reporting and its impact on Corporate Financial Performance: A Literature Review. *Indian Journal of Commerce and Management Studies*. 4(3) 51-59

Ameer, R., & Othman, R. (2012). Sustainability practices and Corporate Financial Performance: a study based on top global corporations. *Journal of Business Ethics*. 108, 61-79

Asaolu, T., O., Agboola, A., A., Ayoola, T., J., & Salawu, M., K. (2011). Sustainability Reporting in the Nigerian Oil and Gas Sector. *Proceedings of the Environmental Management Conference, Federal University of Agriculture, Abeokuta, Nigeria, 2011*

Barlett, B., D. (2012). The Effect of Corporate Sustainability Reporting on Firm Valuation. Unpublished CMC Senior Thesis

Ching, H., Y., Gerab, F., & Toste, T., H. (2017). The Quality of Sustainability Reports and Corporate Financial Performance: Evidence from Brazilian Listed Companies. *Sage Open* April-June 2017. 1-9

Freeman, R. E. (1984). Strategic Management: A Stakeholder Theory. *Academy of Management Review*. 24(2) 233-236

Ghosh, A. (2013). Corporate Sustainability and Corporate Financial Performance: The Indian Context. *Indian Institute of Management, Calcutta. Working Paper Series. WPS No. 721/January 2013*

Global Reporting Initiative - GRI (2011). G3.1 Sustainability Reporting Guidelines. *Global Reporting Initiative*

Kapoor, S., Sandhu, H., S. (2010). Does it pay to be Socially Responsible? An Empirical Examination of Impact of Corporate Social Responsibility on Financial Performance. *Global Business Review*. 11, 185-208

Kusuma, A., P., A., Koesrindartoto, D., P. (2014). Sustainability Practices and Financial Performance: An Empirical Evidence from Indonesia. *International Conference on Trends in Economics, Humanities and Management*. August 13-14, 2014. Pattaya (Thailand)

Muhammad, A., I. (2014). Sustainability Reporting among Nigerian Food and Beverage Firms. *International Journal of Agriculture and Economic Development*. 2(1) 1-9

Nnamani, J., N., Onyekwelu, U. L., & Ugwu O., K. (2017). Effect of Sustainability Accounting and Reporting on Financial Performance of Firms in Nigerian Brewery Sector. *European Journal of Business and Innovation Research*. 5(1) 1-15

- Nwobu, O. (2015). The Relationship between Corporate Sustainability Reporting and Profitability and Shareholders Fund in Nigerian Banks. *Journal of Accounting and Management JAM* 5(3) 1-12
- Pan, X., Sha, J., Zhang, H., & Ke, W. (2014). Relationship between Corporate Social Responsibility and Financial Performance in the Mineral Industry: Evidence from Chinese Mineral Firms Sustainability. 6, 4077-4101. doi: 10.3390/su6074077
- Siew, R., Y., J., Balatbat, M., C., A., & Carmichael, D., G. (2013). The relationship between Sustainability Practices and Financial Performance of Construction Companies. *Emerald Smart and Sustainable Built Environment*. 2(1) 6-27
- World Business Council for Sustainable Development (2002). *The Business Case for Sustainable Development*. Switzerland. Retrieved from <http://www.wbcsd.ch/DocRoot/rzNj49uF0kxGvdLfDte/business-case.pdf>

## **APPENDIX 1**

### List of sampled companies

1. Nigerian Breweries Plc
2. Guinness Nigeria Plc
3. International Breweries Plc
4. Champion Breweries Nigeria Plc
5. Golden Guinea Breweries Plc