
Emerging Corporate Reporting Perspectives and Operational Performance of Listed Oil and Gas Firms in Nigeria

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Abstract

The study examined emerging corporate reporting perspectives and operational performance of listed oil and gas firms in Nigeria. The study adopted a mixed research method using both correlation and causal research design in analyzing the data of the 7 (Sampled) listed Oil and Gas firms from 2011-2020. Findings revealed that there exists a positive weak relationship between sustainability disclosure and sales performance of the listed Oil and Gas firms in Nigeria. But sustainability cost has a strong positive relationship with sales performance of the listed Oil and Gas firms in Nigeria. Based on the findings, we conclude and recommend that listed Oil and Gas firms in Nigeria should adopt the recommendation made by GRI to report separately sustainability performance of the firms outlining the cost implication for being environmentally, socially and economically responsible. This will signal the ethical concerns of the firms to the various stakeholders thus, increase the patronage of their products and in turn increase the firms sales. It was further recommended that listed Oil and Gas firms should ensure that more figures are disclosed than relying only on letters. Figures and pictorial evidence will attract the attention of stakeholders to the sustainability disclosure items of the firms and subsequently improve the trust and patronage of the firm. The current sustainability report is lacking in this aspects, that may be the reason why the result showed a weak insignificant relationship with the sales performance of the listed Oil and Gas firms.

Keywords: Tripple bottom line reporting, Sustainability cost, sustainability disclosure and sales performance.

1.1 Introduction

The main objective of business venture is maximization of shareholders' wealth and minimization of costs. Since shareholders are one of the stakeholders, business organizations ought to take into consideration the interest of other stakeholders who are generally or specifically been influenced by the activities of modern business. Firms are normally acknowledged with an objective to improve stakeholder's welfare and at the same time remain profitable. However, in most cases, operations and activities carried on by these firms especially those in the Oil and Gas sector affect the environment in which they are situated as well as the

larger environment. As from 2010, sustainability has gradually become a subject of interest around the globe. Apart from the compulsory reporting of financial performance, some companies or firms engaged in reporting some of their non-financial performance and activities which are indeed significant and integral to the improvement of their performance (Owolabi, Akinwumi, Adetula&Uwugbe, 2016). Okafor., Onyali&Onodi (2016), observed that the value of a company is impacted by the quality of its relationship with a range of internal and external stakeholders. The ability of a company to communicate with its key stakeholders can be critical to its long term success, viability and growth. Advantages associated with an effective sustainability response (and associated reporting) may include aligning with and capitalizing on stakeholder values, pre-empting stakeholder action, sustaining the value chain and capturing operational efficiencies. Sustainability Reporting (SR) offers the best option for reconciling all the doubts and information needs of the stakeholders. Triple bottom line accounting as a method used in business accounting to further expand stakeholders' knowledge on an organization. It goes beyond the traditional aspects and reveals an organization's impact on the world around it. There are three main focus of Triple bottom line; "People, Planet & Profit". The effect of firms' economic activity on society is highlighted in the World Commission on Environment and Development (WCED) 1987 sustainability report (Dembo, 2017). In the WCED report, the idea of sustainable development was introduced; this tries to balance the conflicting forces of financial efficiency, social fairness, and environmental awareness as essential values of corporations (Girón, Kazemikhasragh, Cicchiello& Eva, 2020). Failure of firms to accounts for their social and environmental impacts, through her reports often cause the stakeholders to react which might disrupt the operations of the firms.

In the global space, there has been an increasing trend in the direction of sustainable business practices and reports. This is pushed by diverse motives such as; government policies, pressures from relevant stakeholders like investors, customers, employees, local communities, regulators, and non-governmental agencies (Alkababji, 2014). To Oil and Gas firms, sustainability reporting is an effort by the firms to address societal and environmental issues as a result of direct consequence of their business activities and operations. Gregory, Tharyan, and Whittaker (2011), noted that firms engage in sustainability reporting for ethical reasons. But the problem faced by firms in adopting sustainability reporting framework is the costs incurred in engaging sustainability reporting. In view of the above development, we intend to study the relationship and possible effect of sustainability reporting on operational performance of the listed Oil and Gas firms in Nigeria.

1.2 Statement of the problem

Many studies on sustainability reporting abound in advanced economy, but in Nigeria, both empirical and methodological gaps were identified from the few studies accomplished by preceding authors. For example, Giron et al., (2020); Syder, Ogbonna, and Akani (2020); Herbert, Nwaorgu, Onyilo, and Iormbagah (2020); Erhirhie and Ekwueme (2019) carried out their studies on sustainability reporting. However, they centered their research on the manufacturing sector, while studies such as Olaf and Razaul (2020); and Nwobu et al., (2017) carried out within the banking sector all focused on the issue of disclosure than reporting for sustainability costs and how the disclosure affects the operational performance of the firms. To

bridge this gap, the study will rely on the disclosure index stipulated in the Global Reporting Initiative (GRI) framework to examine sustainability reporting and operational performance of listed Oil and Gas firms in Nigeria.

There has been a great concern on environmental, social, and cultural detrimental consequences of firms' economic activities on host communities in Nigerian. These problems vary from oil spillage, degradation of the environment by firms in the extractive industry to manufacturing of items that are not bio-friendly. In Nigeria, there is no legislation so far mandating the firms to account for its impacts on the society and environment by way of sustainability report. Again, there is no consensus literature to explain the concept of sustainability reporting, how it is measured and how it affects the operational performance of Oil and Gas firms in Nigeria.

1.3 Objective of the study

The objective of this study is to examine the relationship between sustainability reporting (Cost & Disclosure) and sales performance of listed Oil and Gas firms in Nigeria. Hypothesis of the study was stated in null form as thus:

HO₁: Sustainability reporting (Cost & Disclosure) has no significant effect on sales performance of listed oil and gas firms in Nigeria.

1.4 Definition of Terms

Emerging corporate reporting perspectives: For purposes of this study, it refers to sustainability reporting and triple bottom line reporting initiatives as discussed under conceptual review below.

Sustainability cost: This refers to the cost incurred by the firm in carrying out environmental, economic and social performance activities.

Sustainability disclosure: This refers to the reporting of activities concerning environmental, economic and social performance activities of the firm.

Sales performance: This refers to the revenue generated by the firms from sales of the firms' product.

2.1 Literature review

2.1.1 Concept of emerging corporate reporting

Sustainability is an emerging corporate reporting practice and it is viewed as development that meets the desires of contemporary society without compromising future generations' potential to meet their own needs. This preposition of what sustainability means is on the premise that listed Oil and Gas firms are anticipated to focus on sustainability reporting (Ijeoma, 2015). Sustainability is a broad, controversial idea that balances the need for financial growth with environmental conservation and social justice (Amacha&Dastane, 2017; Erhirhie&Ekwueme, 2019). It is deemed that, if corporations prefer to achieve operational performance financial gain, they need to not ignore sustainable reporting goals, as this gives them opportunity to justify their actions to stakeholders. Dembo (2017), posits that sustainable performance and reporting is a term describing a company's duty to be responsible to all its stakeholders, in all its operations and activities in terms of her environmental, economic and social performance. Firms that are accountable in terms of sustainability will think about the full scope of the effect of their

economic activities on the host communities and the environment when making decisions, balancing the need of stakeholders with their desire to make a profit. Sustainability practice of firms is a duty for firms' involvement with the betterment of society (Dabbas & Al-rawashdeh, 2012). It means that firms should no longer solely meet shareholders' profit maximization needs but additionally consider society's needs as stakeholders (Cortez & Cudia, 2011). In reporting the sustainability performance of firms, they must consider both the cost and disclosure of items which are not captured by the financial data report. Orlitzky, Schmidt & Rynes, 2003; Onyekwelu & Uche, (2014), opined that sustainability cost is consequently being considered as the cost incurred by Oil and Gas firms as they take decisions and actions on the impacts of their operations on the society and environment. The upward push in sustainability cost and actions by firms, offers strength to firms overall performance in terms of legitimacy and acceptability by the host community. This is as a result of the recognition of social and environmental responsiveness of the firms by communities and, consequently, reduction in social gaps, increases in public services, and increases in innovation (Lin, Chang & Dang, 2015). On one hand, firms achieve an improved reputation, whilst on the other hand, the society gains from social initiatives like provision of infrastructure, health, sports facilities, education among other projects accomplished by the firms (Owolabi, Akinwumi, Adetula & Uwuigbe, 2016). Today sustainability cost transcends the ancient charitable gesture of the past of donating cash to suitable causes only at the end of the financial year (Shehu, 2013) but, an all-year-round responsibility about environmental and economic accountability cost of the firms. Failure of businesses over the world to communicate their sustainability practices overtime has created a gap and discord between the firms and the stakeholders. Adam & Zutshi, (2004), maintained that sustainability performance can best be communicated through disclosure of sustainability performance ranging from environmental protection activities to social and economic accountability practices. Also, Abdulraham, (2013), posits that considering the modern global business circle that is characterized by serious demand for sustainability disclosure propagated by stakeholders' demand for more transparency, the issue of sustainability disclosure bothering environmental, economic and social performance of the Oil and Gas firms comes into focus.

2.1.2 Triple bottom line reporting

Onyali, Okafor & Onodi (2015), define Triple bottom line accounting as a method used in business accounting to further expand stakeholders' knowledge on an organization. It goes beyond the traditional aspects and reveals an organization's impact on the world around it. There are three main focus of Triple bottom line; "People, Planet & Profit". It is a concerted effort to incorporate economic, environmental and social considerations into a company's evaluation and decision making processes. The emphasis, however, is on the financial indicators and measurable factors, and it publishes the social and environmental results separately, in a non-integrated form (Gray and Milne, 2002). Three perspectives are identified as having a significant role to play as follows:

i). Management perspective: Stakeholder theory is a management perspective identifying parties likely to affect entities. Clarkson (1995), described two stakeholder groups; primary stakeholders and secondary stakeholders. Participation of primary stakeholders is crucial for survival of the entity as a going concern, while secondary stakeholders are those that influence, or affect, or are

influenced or affected by, the entity, but are not engaged in transactions with the entity and are not essential for its survival.

ii). User perspective: Faux (2002), identified two user groups; Explicit users and potential users. Explicit users are those users that have identifiable rights to information supplied by entities. These rights are largely codified through legislation and other regulatory processes. The other users such as potential shareholders and analysts have no contractual arrangement with a company, but find that the information supplied to explicit users satisfies their needs. Implicit users are those who have no formal obligation with the entity but are more than relevant in today's society.

iii). Societal assurance perspective: The societal assurance perspective recognizes that there are members of the society including some identified in the perspectives above that feel strongly that entity reports should be verifiable and regulated but they are not particularly interested in reading the report (Faux,2004), cited in Onyali et al; (2015). This perspective is about entities being accountable for their actions to the society and recognizes the relationships identified by Diegling et al (1996), in their five accountability rationalities, as legal, economic, technical, social and political. The complexity of philosophical and theoretical approaches and perspectives to triple bottom line reflects the difficulties that entities are likely to encounter measuring and reporting triple bottom line performance.

2.1.3 Operational Performance

The response of firms to environmental liabilities has brought about the reconfiguration of corporate performance indices in a larger context under the subtle influence of environmental and social factors, in order to develop a holistic panorama of an entity's performance. This has led to a growing demand from various stakeholders for measurement of a company's green practices and subsequent public disclosure of this information. The definition of firm operational performance and its dimension continues to challenge scholars due to its complexity. This study strives to make a contribution to this effort by developing and testing a subjective scale of operational performance that covers the area of sales performance in the words of Uwuigbe and Jimoh (2012). Sales operations gives insights into sales performance by indicating whether the sales team achieves a target within a particular time, how many opportunities they have had, how many resources they have used to acquire a lead and turn them into a buying customer. Operational performance measures investigate the satisfaction of at least one group of stakeholders. This conceptualization of company performance is relevant throughout different companies, as observed by Okegbe and Egbunike (2016). It permits one to differentiate between high and low performers, in the views of stakeholders using indices such as sales. Sales allows stakeholders ascertain the level at which managers have effectively utilized the assets in their possession for production, as well as the patronage of customers due to certain reasons. Syder, Ogbonna and Akani (2020), argued that, it is only when firms are environmentally and socially responsible that the host community allow unhindered production which in turn generates sales. This study focused on sales as a measure of operational performance, while sales refers to the revenue generated from the sales of firms' product to customers.

2.2 Theoretical framework

2.2.1 The triple bottom line theory

Triple bottom line is an accounting framework that incorporate three dimensions of performance, that is, social, environment and financial. This framework was developed by Elkington (1997) to measure both financial and non-financial performance during the mid-1990s. A new type of accounting, triple bottom line accounting (TBL Accounting), can also be found in the specialist literature, or more frequently encountered as the Triple Bottom Line concept, which shows separately the economic, social and environmental effects of the company's operations. The triple bottom line theoretical concept as propounded by Elkington (1994) holds that capitalism has to satisfy legit demands for performance. Elkington (1997) made an assertion that is in line with Adam Smith's theoretical concept of the firm which postulates that corporations have one and solely one goal; to fulfill the desires of shareholders by making profits through sales. However, sales might also not be achievable if the environment in which the corporation operates is neglected. As a result, corporations should accommodate the triple bottom line strategy (social, economical, and environmental performance) in practice and report in order to make a contribution to sustainable development.

2.3 Empirical review

Ibrahim, Mohammed, Agbi, Kaoje and Abdulkarim (2021), examined the effect of sustainability reporting on financial performance of quoted Nigerian Oil and Gas firms. They used regression method for data analysis. Their findings revealed that economic sustainability has a positive insignificant effect on return on assets; environmental sustainability has a positive significant effect on return on assets while social sustainability has a positive insignificant effect on return on assets.

Girón et al., (2020), investigated the factors that affect the adoption of new sustainability reporting practices and external assurance. Also, they examined the relationship between the reporting activity and firms' financial overall performance using data from the Global Reporting Initiatives (GRI) Sustainability, Disclosure Database, and the Orbis database, from Bureau van Dijk. They employed the use of two logit models and one regression model primarily based on a sample of 366 large Asian and African corporations which have addressed Sustainable Development Goals in their sustainability reports published in 2017. The study revealed that manufacturing sector with a higher proportion of female directors in the company's management structure has positive association with the adoption of sustainability reporting and external assurance. It further revealed that adoption of sustainability reporting and external assurance in the manufacturing sector leads to higher financial performance.

Herbert et al., (2020), evaluated the sustainability reporting and performance of listed upstream petroleum companies in Nigeria, using a content analysis approach. They objectively evaluated the textual content of the sustainability reports of the companies in line with the GRI standards. Their study observed evidence of insufficient reporting of sustainable financial performance by the foremost Oil and Gas firms, especially the financial implications and other risks and possibilities due to climate change. The results revealed that the Oil and Gas firms are less

affected by environmental conservatism due to susceptible environmental regulation enforcement. The firms' sustainability performance reports about the environment and protection of the rights of indigenous communities are disingenuous. Further, there is little evidence of the adoption of the Triple Bottom Line framework in evaluating firm overall performance from a broader standpoint or in creating firm value.

Erhirhie and Ekwueme (2019), took a look at the impact of sustainability reporting on the financial performance of listed Oil and Gas corporations in Nigeria. They assessed the impact of company social sustainability reporting on return on assets, return on equity, and return on capital employed of Oil and Gas companies listed on the Nigeria Stock Exchange. Ten Oil and Gas firms were sampled for the study. The study utilized secondary data gathered through financial ratios and accounts of the companies and content analysis. The findings showed that social sustainability reporting exerts a negative effect on all three overall performance proxies, however, only its effect on return on equity was statistically significant.

Mehwish (2018), examined corporate social responsibility and its effect on financial performance, using the banking industry in Pakistan. Finding from the Ordinary Least Square (OLS) regression method revealed that CSR has a positive influence on ROE and ROA.

Nwobu et al., (2017), investigated sustainability reporting of Nigerian firms in the banking sector for the five-year period ended December 2014. A disclosure index was used to score the information content material of firms' reports pertaining to sustainability indicators. There was an increase in the mean sustainability reporting scores of the firms throughout the 5 years. The economic indicators were skewed in favor of direct financial value generated, economic value distributed, the estimated cost of defined benefit plan responsibilities (liabilities).

Yigit and Mukhtar (2017), studied the impact of corporate social responsibility dimensions on corporate financial performance of commercial firms in emerging economies, namely Turkey and Nigeria. Content analysis was performed to extract financial and corporate social responsibility disclosure records from annual reports and corporate social responsibility associated reports of firms listed on the Borsa Istanbul (BIST) and the Nigerian Stock Exchange (NSE). Panel data multiple linear regression analysis was performed to analyze the relationship between corporate social responsibility dimensions and corporate financial performance. The findings, in line with the stakeholder theory, indicate that corporate social responsibility has a positive effect on corporate financial performance in Nigeria. However, there is no statistically significant relationship between corporate social responsibility and corporate financial performance in Turkey.

3. Methodology

3.1 Research Design and data collection method

The study adopts a mixed research method. Both the correlational and casual research design were employed for data analysis. The population of the study was the 12 listed Oil and Gas firms on the Nigerian Exchange Facts Book, 2022. Using purposive sampling criteria, the study

selected 7 out of the 12 listed Oil and Gasfirms on the Nigerian stock exchange. Data from the audited financial statements of the sampled firms were meticulously examined and relevant information extracted from the period 2011-2020 and analyzed. The study was limited to sustainability costs and disclosure contents adapted from the GRI framework. The study particularly covers listed Oil and Gas firms in Nigeria, specifically those who have information concerning sustainability.

3.2 Model Specification

The study formulated the following regression model to be used;

$$SAL_{it} = \alpha + \beta_1 SRC_{it} + \beta_2 SRD_{it} + U_{it} \dots \dots \dots \text{Model 1}$$

α = Constant

SAL = Sales (The reported revenue of the Oil and Gasfirms at a given time).

SRC = Sustainability cost (The log of reported cost incurred in carrying environmental, economic and corporate social responsibility by the firms at a time).

SRD = Sustainability disclosure (The number of disclosure items using the GRI disclosure index on environmental, economic and corporate social responsibility divided by the total ‘8’ sustainability index used in the study.

it = Cross sectional data (i) Time (t)

U = Error term used in the model.

$\beta_1 + \beta_2$ = Beta coefficient of the independent variable.

Decision Rule

Accept the null hypothesis if the calculated value is greater than the significant level of 0.05.

4.1 Data presentation, analysis and findings

4.2 Data Presentation and analysis

The data used for this study is attached in appendix I for your perusal. This section analyzes the data with the aid of statistical package for social sciences (SPSS, version 21). The analysis of data is presented below:

4.2.1 Descriptive statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
SAL	70	6.15	8.49	7.7594	.62285	-1.029	.287
SRD	70	.38	.75	.6071	.09818	-1.033	.287
SRC	70	6.00	8.03	6.8964	.58551	.558	.287
Valid N (listwise)	70						

Source: SPSS Version 21 Output in appendix II

The descriptive statistics table above presents data of all the variables. N represents the number of observation; therefore the number of observation for the study is 70. To test for normality of data, the general rule of thumb for measurement of skewness (-2 to +2) is applied. The study variables (SAL, SRC, &SRD) data Skweness statistic values fall between the range of -2 and +2; this indicates that the study overall data are within the normal skweness level thus qualifies for further analysis. The operating performance measured by the reported sales (SAL) has a mean of 7.7594 with a deviation of 0.62285. The SAL also revealed a minimum and maximum value of 6.15 and 8.49 respectively. For sustainability disclosure (SRD) the minimum value is 0.38 while the reported maximum value is 0.75. Again the mean value recorded is 0.6071 with a standard deviation of 0.09818 for SRD. Furthermore, sustainability cost (SRC) revealed a minimum and maximum value of 6.00 and 8.03 while its' mean and standard deviation stood at 6.8964 and 0.58551 respectively.

4.2.2 Data validity test

		SRC	VIF	Tolerance	DW
	Pearson Correlation	1			
SRD	Sig. (2-tailed)		1.685	.594	0.521
	N	70			
	Pearson Correlation	0.638*			
SRC	Sig. (2-tailed)	0.0000	1.685	.594	
	N				
	Sig. (2-tailed)				
	N				

Source: SPSS Version 21 Output in appendix II

The data validity table above shows the Pearson correlation, VIF, Tolerance statistics and Dublin Watson for all the independent variables to ensure further proof of non-existence of multicollinearity between the independent variables since they consist of unranked data. Correlation considers two variables at a time to determine how they relate to each other. These types of checks are necessary because high correlation cause problems about the relative contribution of each predictor to the success of the model (Gujariti, &Sangeetha, 2007). The correlation matrix above shows the absence of multicollinearity among the explanatory variables. The relationship between SRC and SRD reveal a low correlation of 0.638. The correlation valueis less than 0.75, as 0.75 is considered harmful for the purpose of analysis (see Gujarati and Sangeeta, 2007, Berenson and Levine, 1999). Therefore, the correlation result above further proves the absence of multicollinearity issues.

In order to ensure that the results are robust, further diagnostic tests such as Durbin Watson test, variance inflation factor (VIF) and Tolerance statistics are computed as shown in the data validity table above. The Durbin Watson is estimated at 0.521 approximately 1 for the model specified which is below the standard of 2, indicating the absence of auto-correlation. The Durbin Watson statistics ensures that the residuals of the proceeding and succeeding sets of data do not affect each other to cause the problem of auto-correlation. In this result there is no case of autocorrelation of the residual values. The Variance Inflation Factor (VIF) statistics for the independent variables stood at 1.685 (SRC &SRD). While, the Tolerance statistics stood at 0.594 for the model specified. This indicates the absence of multicollinearity problems among the variables under investigation. According to Berenson and Levine (1999) VIF values above 10 and tolerance values of less than 0.1 are considered to have multicollinearity issues; and this is not the case with this study variable.

4.2.3 Correlation estimation

This section test for the relationship between the independent and dependent variable. The following outcome is discussed;

Correlation Table

		SAL
SAL	Pearson Correlation	1
	Sig. (2-tailed)	
	N	70
SRD	Pearson Correlation	.460**
	Sig. (2-tailed)	.000
	N	70
SRC	Pearson Correlation	.731**
	Sig. (2-tailed)	.000
	N	70

Source: SPSS Version 21 Output in appendix II

From the correlation table above, it is inferred that, there exist a positive weak relationship between sustainability disclosure (SRD) and sales performance (SAL) of the listed Oil and Gas firms in Nigeria at approximately 46%. Also, further result revealed that, there exist a strong positive relationship between sustainability cost (SRC) and sales performance (SAL) of the listed Oil and Gas firms in Nigeria at approximately 73.1%. This means that, listed Oil and Gas firms in Nigeria attract 46% and 73.1% sales when they report disclosure of information and sustainability cost regarding sustainability performance.

4.2.4 Regression model estimation

Estimated Regression Model Summary Table

Model	R	R Square	Adjusted R Square	Change Statistics		
				R Square Change	F Change	Sig. F Change
1	.731 ^a	.535	.521	.535	38.526	.000*

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.386			3.849	.000
1 SRC	0.785		0.738	6.822	.000*
SRD	-0.064		-0.010	-0.094	.926

Source: SPSS Version 21 Output in appendix II

The estimated regression model summary table above presents the regression result between SRC, SRD and SAL. From the model summary table above, the following information can be distilled: The R value of 0.731 shows that, there is an overall strong relationship between SRC, SRD and SAL at 73.1%. Also, the R² stood at 0.535; the R² otherwise known as the coefficient of determination shows the percentage of the total variation in the firms’ operational performance (SAL) that can be explained by sustainability reporting (SRC&SRD). Thus the R² value of 0.535 indicates that 53.5% of the variation in the sales as operational performance measure can be explained by a variation in sustainability reporting variables; SRC and SRD while the remaining 46.5% (i.e. 100-R²) could be accounted by other variables not included in this model. The adjusted R² of 0.521 indicates that if the model is adjusted and operational factors or government regulations for mandatory sustainability reporting is considered for this study, this result will deviate by only 0.014 (i.e. 0.535 – 0.521). This means there will be a deviation from the current result by 1.2%. This deviation is not too high above the error term of 5% to say that the result of this study does not reflect the true nature of the effect of sustainability reporting on operational performance of listed Oil and Gasfirms in Nigeria. The table further shows the Fisher significant value of 0.000 with a variation of change at 38.526 units which indicates that the set of independent variables were as a whole contributing to the variance in the dependent variable at a significant level thus the model is statistically significant.

Furthermore, the regression result as presented in the estimated regression model table above to determine the relationship between SRC, SRD and SAL shows that when the independent variables are held stationary; the SAL variable is estimated at 2.286. This simply implies that when all variables are held constant in the long-run, there will be increase in the SAL of listed Oil and Gasfirms up to the tune of 2.386 units occasioned by short run factors not considered. After adjustment for short run (Beta), a unit increase in SRC will lead to an increase in SAL of the firms by 73.8% as investors will perceive the increase in sustainability cost reported to be an index of increased performance because it is assumed that only firms who are making profit from sales can carry out sustainability activities. But a unit increase in SRD will lead to decrease in the sales by 1%. Investors are more interested in reported sustainability cost than reading volumes of disclosure items.

4.2.5 Test of hypotheses

H0₁: *Sustainability reporting (Cost & Disclosure) has no significant effect on sales performance of listed oil and gas firms in Nigeria.* Given that the accepted significant level is 0.05 and the calculated value for SRC (0.000) is less than the accepted significant level of 0.05, the study rejects the null hypothesis and accepts the alternative hypothesis in respect to SRC and SAL. On the other hand, the calculated value for SRD (0.926) is greater than the accepted significant level of 0.05, the study accepts the null hypothesis and rejects the alternative hypothesis in respect to SRD and SAL. Thus, sustainability cost has a significant effect on sales performance of listed Oil and Gas firms in Nigeria. While sustainability disclosure has an insignificant effect on sales performance of listed Oil and Gas firms in Nigeria.

5.1 Summary of Findings

The following findings are outlined.

- i. The study found that, there exist a positive weak relationship between sustainability disclosure and sales performance of the listed Oil and Gas firms in Nigeria. But sustainability cost has a strong positive relationship with sales performance of the listed oil and gas firms in Nigeria.
- ii. As a result, it was established that sustainability cost has significant effect on sales performance of listed Oil and Gas firms in Nigeria, while, sustainability disclosure has no significant effect on sales performance of listed Oil and Gas firms in Nigeria.

5.2 Conclusion/Recommendations

Based on the study findings, the study concludes that, sustainability cost has a strong positive and significant relationship with sales performance of listed oil and gas firms in Nigeria while, sustainability disclosure has a positive weak and insignificant relationship with sales performance of listed oil and gas firms in Nigeria. Based on the above development, the following recommendations become imperative:

- i. Listed Oil and Gas firms in Nigeria should adopt the recommendation made by GRI to report separately sustainability performance of the firms outlining the cost implication for being environmentally, socially and economically responsible. This will signal the ethical concerns of the firms to the various stakeholders thus, increase the patronage of their products in turn increasing the firms sales.
- ii. The listed Oil and Gas firms should ensure that more figures are disclosed than relying only on letters. Figures and pictorial evidence will attract the attention of stakeholders to the sustainability disclosure items of the firms and subsequently improve the trust and patronage of the firm. The current sustainability report is lacking in this aspects that is why it has a weak insignificant relationship with the sales performance of the listed Oil and Gas firms.

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Appendix I

List of Data Used

SRD	SALES	SUSCOST	SAL	SRC
0.5	132,690,558	3,060,000	8.12284	6.485721
0.625	90924700	5678000	7.958682	6.754195
0.625	128027744	6320000	8.107304	6.800717
0.625	170127987	7000000	8.230776	6.845098
0.5	124617238	8900000	8.095578	6.94939
0.5	131,613,962	10800900	8.119302	7.03346
0.625	86,176,010	9780000	7.935386	6.990339
0.625	134,706,306	13457010	8.129388	7.128949
0.625	176,550,766	15750000	8.24687	7.197281
0.625	181,664,468	79340280	8.25927	7.899494
0.625	157,512,072	12,500,000.00	8.197314	7.09691
0.625	149,993,261	15600500	8.176072	7.193139
0.625	159,537,133	19800000	8.202862	7.296665
0.625	128,352,674	20300000	8.108405	7.307496
0.625	82,919,220	10000000	7.918655	7
0.625	85,023,546	13500000	7.929539	7.130334
0.625	115,513,246	45000000	8.062632	7.653213
0.625	122,213,014	52500000	8.087117	7.720159
0.625	139,758,285	55000000	8.145378	7.740363
0.625	117,470,576	68,000,000	8.069929	7.832509
0.625	40,082,352	3000000	7.602953	6.477121
0.625	90,488,468	3650000	7.956593	6.562293
0.625	99,307,561	4300000	7.996982	6.633468
0.625	82832211	4500000	7.918199	6.653213
0.625	92669238	5000000	7.966936	6.69897
0.625	107,536,032	3400000	8.031554	6.531479
0.625	173,611,081	3324000	8.239577	6.521661
0.625	251,874,722	3650000	8.401185	6.562293
0.625	229,274,785	10670000	8.360356	7.028164
0.625	58,715,576	17800000	7.768753	7.25042
0.5	3,440,988	1200000	6.536683	6.079181
0.5	7,243,638	3000000	6.859957	6.477121
0.5	8,031,756	2600000	6.904811	6.414973
0.375	7,338,911	2307000	6.865632	6.363048
0.375	5,434,086	1450900	6.735127	6.161637
0.375	64,914,400	1780988	7.812341	6.250661
0.375	5,434,086	1570500	6.735127	6.196038

0.375	19,138,300	1900000	7.281903	6.278754
0.375	85,853,000	2560000	7.933755	6.40824
0.375	18,520,300	2300000	7.267648	6.361728
0.625	87,665,670	3100000	7.94283	6.491362
0.625	72,727,982	4530000	7.861702	6.656098
0.625	87,786,897	4650000	7.94343	6.667453
0.625	92325009	3000000	7.965319	6.477121
0.625	87021992	3200000	7.939629	6.50515
0.625	109,635,054	5461100	8.039949	6.73728
0.625	107,088,347	7890000	8.029742	6.897077
0.625	89,552,819	8660100	7.952079	6.937523
0.625	65,567,458	4530000	7.816688	6.656098
0.625	41,981,439	5678000	7.623057	6.754195
0.75	173,948,954	45678201	8.240422	7.659709
0.75	217,843,731	56789200	8.338145	7.754266
0.75	238,163,160	67888900	8.376875	7.831799
0.75	240,618,693	67809800	8.381329	7.831292
0.75	208,027,688	78645367	8.318121	7.895673
0.75	290,952,520	80912356	8.463822	7.908015
0.75	288,062,650	78901234	8.459487	7.897084
0.75	307,987,896	89000000	8.488534	7.94939
0.75	292,177,202	98700567	8.465646	7.99432
0.75	204,721,463	105,982,399	8.311163	8.025234
0.625	1,993,800	1110998	6.299682	6.045713
0.625	4,419,250	1432001	6.645349	6.155943
0.625	3,831,438	1009891	6.583362	6.004275
0.625	7246034	3200000	6.8601	6.50515
0.625	6682951	3456789	6.824968	6.538673
0.625	8,271,111	2453990	6.917564	6.389873
0.625	10,370,833	4678001	7.015814	6.67006
0.625	9,569,689	3456780	6.980898	6.538672
0.625	4,419,250	2546000	6.645349	6.405858
0.625	1,408,109	1001980	6.148636	6.000859

Continued.....

NAME	YEAR	EP1	EP2	EP3	EP4	SP1	SP2	EMP1	EMP2	SUM	TOTAL
ARDOVA	2011	1	0	1	1	0	1	0	0	4	8
ARDOVA	2012	1	0	1	1	1	1	0	0	5	8
ARDOVA	2013	1	0	1	1	1	1	0	0	5	8
ARDOVA	2014	1	0	1	1	1	1	0	0	5	8
ARDOVA	2015	0	0	1	1	1	1	0	0	4	8
ARDOVA	2016	0	0	1	1	1	1	0	0	4	8
ARDOVA	2017	1	0	1	1	1	1	0	0	5	8
ARDOVA	2018	1	0	1	1	1	1	0	0	5	8
ARDOVA	2019	1	0	1	1	1	1	0	0	5	8
ARDOVA	2020	1	0	1	1	1	1	0	0	5	8
CONOIL	2011	1	0	1	1	1	1	0	0	5	8
CONOIL	2012	1	0	1	1	1	1	0	0	5	8
CONOIL	2013	1	0	1	1	1	1	0	0	5	8
CONOIL	2014	1	0	1	1	1	1	0	0	5	8
CONOIL	2015	1	0	1	1	1	1	0	0	5	8
CONOIL	2016	1	0	1	1	1	1	0	0	5	8
CONOIL	2017	1	0	1	1	1	1	0	0	5	8
CONOIL	2018	1	0	1	1	1	1	0	0	5	8
CONOIL	2019	1	0	1	1	1	1	0	0	5	8
CONOIL	2020	1	0	1	1	1	1	0	0	5	8
ETERNA	2011	1	0	1	1	1	1	0	0	5	8
ETERNA	2012	1	0	1	1	1	1	0	0	5	8
ETERNA	2013	1	0	1	1	1	1	0	0	5	8
ETERNA	2014	1	0	1	1	1	1	0	0	5	8
ETERNA	2015	1	0	1	1	1	1	0	0	5	8
ETERNA	2016	1	0	1	1	1	1	0	0	5	8
ETERNA	2017	1	0	1	1	1	1	0	0	5	8
ETERNA	2018	1	0	1	1	1	1	0	0	5	8
ETERNA	2019	1	0	1	1	1	1	0	0	5	8
ETERNA	2020	1	0	1	1	1	1	0	0	5	8
JAPPAUL	2011	1	0	1	0	1	1	0	0	4	8
JAPPAUL	2012	1	0	1	0	1	1	0	0	4	8
JAPPAUL	2013	1	0	1	0	1	1	0	0	4	8
JAPPAUL	2014	0	0	1	0	1	1	0	0	3	8
JAPPAUL	2015	0	0	1	0	1	1	0	0	3	8
JAPPAUL	2016	0	0	1	0	1	1	0	0	3	8
JAPPAUL	2017	0	0	1	0	1	1	0	0	3	8
JAPPAUL	2018	0	0	1	0	1	1	0	0	3	8
JAPPAUL	2019	0	0	1	0	1	1	0	0	3	8

JAPAU	2020	0	0	1	0	1	1	0	0	3	8
MRS	2011	1	0	1	1	1	1	0	0	5	8
MRS	2012	1	0	1	1	1	1	0	0	5	8
MRS	2013	1	0	1	1	1	1	0	0	5	8
MRS	2014	1	0	1	1	1	1	0	0	5	8
MRS	2015	1	0	1	1	1	1	0	0	5	8
MRS	2016	1	0	1	1	1	1	0	0	5	8
MRS	2017	1	0	1	1	1	1	0	0	5	8
MRS	2018	1	0	1	1	1	1	0	0	5	8
MRS	2019	1	0	1	1	1	1	0	0	5	8
MRS	2020	1	0	1	1	1	1	0	0	5	8
TOTAL	2011	1	0	1	1	1	1	1	0	6	8
TOTAL	2012	1	0	1	1	1	1	1	0	6	8
TOTAL	2013	1	0	1	1	1	1	1	0	6	8
TOTAL	2014	1	0	1	1	1	1	1	0	6	8
TOTAL	2015	1	0	1	1	1	1	1	0	6	8
TOTAL	2016	1	0	1	1	1	1	1	0	6	8
TOTAL	2017	1	0	1	1	1	1	1	0	6	8
TOTAL	2018	1	0	1	1	1	1	1	0	6	8
TOTAL	2019	1	0	1	1	1	1	1	0	6	8
TOTAL	2020	1	0	1	1	1	1	1	0	6	8
RAKUNITY	2011	1	0	1	1	1	1	0	0	5	8
RAKUNITY	2012	1	0	1	1	1	1	0	0	5	8
RAKUNITY	2013	1	0	1	1	1	1	0	0	5	8
RAKUNITY	2014	1	0	1	1	1	1	0	0	5	8
RAKUNITY	2015	1	0	1	1	1	1	0	0	5	8
RAKUNITY	2016	1	0	1	1	1	1	0	0	5	8
RAKUNITY	2017	1	0	1	1	1	1	0	0	5	8
RAKUNITY	2018	1	0	1	1	1	1	0	0	5	8
RAKUNITY	2019	1	0	1	1	1	1	0	0	5	8
RAKUNITY	2020	1	0	1	1	1	1	0	0	5	8

Note:

EP1: Environmental Fines and Penalties Disclosure

EP2: Environmental Waste management disclosure

EP3: Environmental Donations and Compensations disclosure

EP4: Environmental Carbon emission control disclosure

SP1: Social donations to host communities' disclosure

SP2: Social compensations to customers' disclosure

EMP1: Economic outlook and risk appraisal disclosure

EMP2: Economic appraisal for value added to shareholders disclosure

Appendix II

List of Tables

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
SAL	70	6.15	8.49	7.7594	.62285	-1.029	.287
SRD	70	.38	.75	.6071	.09818	-1.033	.287
SRC	70	6.00	8.03	6.8964	.58551	.558	.287
Valid N (listwise)	70						

Correlations

		SAL	SRD	SRC
SAL	Pearson Correlation	1	.460**	.731**
	Sig. (2-tailed)		.000	.000
	N	70	70	70
SRD	Pearson Correlation	.460**	1	.638**
	Sig. (2-tailed)	.000		.000
	N	70	70	70
SRC	Pearson Correlation	.731**	.638**	1
	Sig. (2-tailed)	.000	.000	
	N	70	70	70

** . Correlation is significant at the 0.01 level (2-tailed).

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.731 ^a	.535	.521	.43107	.535	38.526	2	67	.000	.521

a. Predictors: (Constant), SRD, SRC

b. Dependent Variable: SAL

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	14.318	2	7.159	38.526	.000 ^b
Residual	12.450	67	.186		
Total	26.768	69			

a. Dependent Variable: SAL

b. Predictors: (Constant), SRD, SRC

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	2.386	.620		3.849	.000		
SRC	.785	.115	.738	6.822	.000	.594	1.685
SRD	-.064	.686	-.010	-.094	.926	.594	1.685

a. Dependent Variable: SAL