SUSTAINABILITY DISCLOSURES AND PROFITABILITY OF LISTED OIL AND GAS FIRMS IN NIGERIA

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KEYWORDS

Pillars of sustainability disclosures, profitability indices, listed Oil & Gas firms, and sustainability cost accounting

ABSTRACT

This study examined the effect of pillars of sustainability disclosure on profitability (return on asset) of oil and gas firms in Nigeria. The specific objectives of the study were: to examine the effect of social, economic and environmental pillars of sustainability disclosures on return on assets of Oil and Gas firms in Nigeria. The population of the study was made up of all the manufacturing Oil & Gas firms listed in Nigerian Exchange Group, while Con-oil, Forte Oil, Capital Oil, Total Nigeria and MRS oil Nigeria were selected. The statistical tool used was multiple regression analysis, and the findings revealed that social, economic and environmental pillars of sustainability disclosures have no significant effect on Return on Assets (ROA) of Oil and Gas firms in Nigeria. The study recommended that Oil & Gas manufacturing firms should ensure that they report their social, economic and environmental activities in order to enhance their performance level and compete favorably in Oil sector. This will also enable all the stakeholders appreciate firms' annual report and put reliance on the published financial statements in their investment decisions. When a firm enjoys legitimacy, the performance of the organization will be improved

significantly. The study also recommended that there should be standardized Sustainability Index for ranking firms' reportage in order for the firms to adhere strictly to voluntary and mandatory disclosures.

INTRODUCTION

Sustainability reporting is relatively new in developing economy like Nigeria, but has gained wide acceptance in developed world like the United States of America (USA) and United Kingdom (UK). World Business Council for Sustainable Development (2002) defined Corporate Sustainability as - "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." Global Reporting Initiative (GRI, 2011), stated that "thousands of organizations worldwide now produce sustainability reports. KPMG research shows that in 2008 nearly 80 percent of the largest 250 companies worldwide issued sustainability reports, up from around 50 percent in 2005." Similarly, KPMG International Survey of 2011 which covered 34 countries (Nigeria inclusive) shows that 95 percent of the 250 largest global companies now report on their corporate responsibility activities. Also, corporate responsibility reporting has gained ground within the top 100 companies in each of the 34 countries (KPMG, 2011). This is in response to the demand for organizations to be more transparent in how they treat their economic, social and environmental activities as they affect their stakeholders. There is now an increasing awareness that companies are made increasingly responsible for consequential environmental and social impact of their activities to the host communities and other stakeholders. The big corporations once looked upon as the exclusive concern of its owners is now viewed as being responsible to the society (Ekwueme, 2011). This implies that companies are no longer paying attention to the maximization of shareholders wealth alone but are embracing activities that tend to maximize the benefits accruable to all the stakeholders. There is increased expectation for all companies to be more transparent in how they treat the environment, how they handle their corporate governance issues, how they treat their employees, and how they treat their communities. Epstein (2008), stated that corporations have become more sensitive to social issues and stakeholder concerns and are striving to become better corporate citizens. In view of the above development, corporate sustainability reporting has become such an important issue that most companies are now embracing this evolving corporate reporting system.

Statement of the Problem

The overall objective of any organization is to consistently grow and survive on a long term basis. Most managers are also aware that their organizations are part of a large system which has profound direct and indirect influence on their operations. This implies that if these organizations must effectively and efficiently meet their objectives, they should properly adapt themselves to their environments. Adapting organizations (especially firms) to their environments signifies a reciprocal or symbiotic relationship between the 'duos' as typified by systems model of viewing business. We are now faced with serious challenge of environmental changes such as global warming, health care and poverty. This situation is similar to what Welford (2007) described as tangible environmental crises (serious water shortage across around the world, global food insecurity and decline in fish catches). Ezeabasili (2017) stated that as human population continues to grow, material consumption intensifies and production technology further expands, there is a steady decline in the quantity and quality of environmental resources. There is continuing concern about nature fragmentation and loss of biodiversity, shortages in freshwater availability, over-fishing of the seas, global warming, extreme weather events, air pollution, water pollution, environmental noise and utter neglect and disregard for the protection of the immediate environment, much more the future environment. This type of environmental unsustainability associated with continuously rising demand and a shrinking resource base now spills over into social and economic instability.

So far it is unclear what impact sustainability disclosure has actually had on organization strategies, practices and outcomes (Hubbard, 2008). The result of most researches conducted on sustainability disclosures and financial performance are either inconclusive or contradictory, some positive and some negative results. Due to inconsistent results, it is necessary to re-evaluate other important variables that could determine company performance as well as consider longer time frame. In the light of these limitations this study is therefore set to find out the effect of pillars of sustainability disclosures on the profitability of listed Oil and Gas firms in Nigeria.

Objectives of the Study

The main objective of this study is to examine the effect of pillars of sustainability disclosures on profitability of listed Oil and Gas firms in Nigeria. The specific objectives of this study are as follows:

(i) To examine the effect of social disclosure on return on assets of listed Oil and Gas firms in Nigeria.

(ii) To determine the effect of economic disclosure on return on asset of listed Oil and Gas firms in Nigeria.

(iii) To ascertain the impact of environmental disclosure on return on asset of listed Oil and Gas firms in Nigeria

Research Questions

(i) What is the effect of social disclosure on return on assets of listed Oil and Gas firms in Nigeria?
(ii) To what extent does economic disclosure affect return on asset of listed Oil and Gas firms in Nigeria?
(iii) What is the effect of environmental disclosure on return on asset of listed Oil and Gas firms in Nigeria?

Research Hypotheses

The following hypotheses were stated in Null form:

$H0_1$: Social disclosure has no significant effect on return on assets of listed Oil and Gas firms in Nigeria.

H02: Economic disclosure has no significant effect on return on asset of listed Oil and Gas firms in Nigeria.

H03: Environmental disclosure has no significant effect on return on asset of listed Oil and Gas firms in Nigeria.

Review of related literature

Concept of Sustainability Disclosures

Sustainability disclosure can be described as the legal and industry-standard requirements for the proper reportage of activities of the firm periodically for the benefit of all the stakeholders. Sustainability reporting is a broad term generally used to describe a company's reporting on its economic, environmental and social performance. It is similar to triple bottom line reporting, corporate responsibility reporting and sustainable development reporting, but increasingly these terms are becoming more specific in meaning and therefore subsets of sustainability reporting (Etim, Ndom and Asuquo, 2021)..

Robbins (2011) defines sustainability reporting as a subset of accounting and reporting that deals with activities, methods and systems to record, analyze and report environmentally and socially induced financial impacts, ecological and social impacts of a defined economic system (example, a company, production site,

and nation). Sustainability reporting also, deals with the measurement, analysis and communication of interactions and links between social, environmental and economic issues constituting the three dimensions of sustainability. Sustainability reporting is driven by a growing recognition that sustainability related issues can materially affect a company's performance. Demand from various stakeholder groups for increased levels of transparency and disclosure and the need for companies to appropriately respond to issues of sustainable development created an urgent need for sustainability reporting (Ivan, 2009). Parliament of Australia (2010), posits that sustainability reporting involves companies and organizations demonstrating their corporate responsibility through measuring and publicly reporting on their economic, social and environmental performance and impacts. As stated in GRI (2011), sustainability reporting is the practice of measuring, disclosing and being accountable to internal and external stakeholders for organizational performance towards the goals of sustainable development.

Sustainability reporting as a business approach is expected to create long term shareholders' value by embracing opportunities and managing risks emanating from economic, environmental and social developments. Corporate sustainability leaders achieve long term shareholders' value by gearing their strategies and management to harness the market's potential for sustainability products and services while at the same time successfully reducing and avoiding sustainability cost and risks.

Pillars of Sustainability Disclosures

Three pillars of sustainability consist of the following:

i). Economic pillar: This is otherwise known as profit pillar. Economic sustainability describes the ability to ensure fair and equitable distribution and efficient allocation of resources. It defines strategies that promote utilization of economic resources to the best advantage. Economic sustainability ensures that economic growth maintains a healthy balance with our ecosystem. Economic sustainability sees to the ability of an economy to support a defined level of economic production indefinitely. Baboukardos and Rimmel (2016) cited in Etim, Ndom and Asuquo (2021), posit that Economic sustainability disclosure encapsulates all information that covers all the firms' impact on the economic conditions of all the stakeholders and economic systems at domestic, national and global levels. The economic disclosure component of sustainability reportage is captured in the financial statements or reports that are produced at the end of every financial year.

ii). Environmental pillar: This is also known as planet pillar. Environmental sustainability advocates for a conservative use of the natural resources endowed on the environment. These resources are not unlimited hence our environment, must be protected from exploitation and neglect. Environmental sustainability occurs when processes, systems, and activities reduce the environmental impact of organizations facilities,

products and operations. Environmental sustainability supports initiatives like renewable energy, reducing fossil fuel consumption and fishery, organic farming, tree planting, reducing deforestation, recycling and better waste management. Environmental sustainability disclosure deals with reportage of the effect of the organizations' activities that directly or indirectly impact the environment or the ecosystem. Various aspects of this disclosure include activities that cause pollution, gas flaring, erosion, and climate change (Baboukardos and Rimmel, 2016).

iii). Social pillar: This is normally termed as people's pillar. Social sustainability is the ability of the social system, example, country, family or organization to function at a defined level of social wellbeing and harmony indefinitely. It advocates the idea of an ethical responsibility towards human equality, social justice and poverty reduction. Social aspect of sustainability focuses on balancing the needs of the group. This pillar supports initiatives like peace, social justice, poverty reduction and other grassroots movements that promote social equity. Social aspect of sustainability disclosure as observed by Etim et al (2021), deals with how the activities of the organization affect the entire social systems, social strata, culture, and norms, as well as community relations.

Sustainability Accounting and Sustainable Cost

A definition of Sustainability Accounting is given by Sustainability Integrated Guidelines for Management (The SIGMA Project). The SIGMA project (2003) defines sustainability accounting as "the generation, analysis and use of monetized environmental and socially related information in order to improve corporate environmental, social and economic performance". Sustainable cost is the (hypothetical) cost of restoring the earth to the state it was in prior to an organization's impact; that is the amount of money an organization would have to spend at an end of an accounting period in order to place the biosphere back into the position it was at the start of the accounting period. (Lamberton, 2005). According to Lamberton, Gray draws on the accounting concept of capital maintenance, and applies it to the bio-sphere, recognizing the need to maintain the stock of natural capital for future generations. A sustainable organization would be one that maintains natural capital intact for future generations. Sustainable cost is deducted from the accounting profit (calculated using generally accepted accounting principles) to arrive at a notional level of sustainable profit or loss. Where the sustainable cost exceeds the accounting profit the degree of unsustainability is measured in monetary terms.

Profitability Indices (Ratios)

Osisioma (1996), stated that the ratios are aimed at bringing to light the profitability of a firm's operation, the management efficiency as measured by the returns on capital employed and the intensity of capital usage – the rapidity with which invested capital is turned over. Osisioma identifies the following profitability ratios.

i). Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives a manager, investor, or analyst an idea as to how efficient a company's management is at using its assets to generate earnings. Return on assets is displayed as a percentage. Businesses (at least the ones that survive) are ultimately about efficiency: squeezing the most out of limited resources. Comparing profits to revenue is a useful operational metric, but comparing them to the resources a company used to earn them cuts to the very feasibility of that company's' existence. Return on assets (ROA) is the simplest of such corporate bang-for- the-buck measures. ROA is calculated by dividing a company's net income by total assets. Return on assets (ROA), in basic terms, tells you what earnings were generated from invested capital (assets). ROA for public companies can vary substantially and will be highly dependent on the industry. This is why when using ROA as a comparative measure, it is best to compare it against a company's previous ROA numbers or against a similar company's ROA. The ROA figure gives investors an idea of how effective the company is in converting the money it invests into net income. The higher the ROA number, the better, because the company is earning more money on less investment.

ii). Return on capital employed (or return on Investment) which is an efficiency gauge to show the intensity and profitability of overall capital employed. It is given by the formula:

$$\frac{\text{Net profit(before interest and taxes)}}{\text{Capital employed}}$$

iii). Return on equity which is a test of profitability based on the investments of the owners of the business. It measures the return which accrues to the shareholders after interest payments and taxes are deducted. It is given by the formula:

$$\frac{\text{Net profit (after interest, taxes and preference dividend}}{\text{Shareholders Equity}}$$

iv). Net profit margin (or net operating margin) which is a measure of the proportion of the naira sales which remains after the deduction of all expenses. It is given by the formula:

Net profit(before interest and taxes

Net sales

v). Gross profit margin which is a ratio that expresses the gross profit of the firm as a percentage of net sales. It measures the efficiency of a firm's sales operations with respect to the cost of goods sold. This ratio helps to determine the efficiency of a firm's trading and manufacturing operations. It is given by the formula:

Gross profit

Net sales

Note that this study used return on assets as proxy for profitability.

THEORETICAL REVIEW

This study is anchored on legitimacy and political economy theories as discussed hereunder:

Legitimacy theory

In organization's perspective, legitimacy has been defined by Lindblom (1994) in Deegan (2007) as a condition or status which exists when an entity's system is congruent with the value system of the larger social system of which the entity is a part. When a disparity, actual or potential, exists between the two value systems, there is a threat to the entity's legitimacy. Legitimacy theory is derived from political economy theory (Gray et al, 1996) in Kent and Stewart, 2008) and relies on the idea that the legitimacy of a company to operate in society depends on an implicit social contract between the company and society. Managers continually attempt to ensure that their company complies with its social contract by operating within society's expectations. This suggests that managers have incentives to disclose information that indicates that the company is not in breach of the norms and expectations of society (Deegan and Blomquist, 2006 in Kent and Stewart, 2008).

Political Economy Theory

The political economy has been defined by Gray et al. (1996) in Deegan (2007) as the social, political and economic framework within which human life takes place. Political economy theory explicitly recognizes the power conflict that exist within society and the various struggles that occur between various groups within the society. The perspective embraced in political economy theory is that society, politics and economics are inseparable and economic issues cannot meaningfully be investigated in the absence of considerations about the political, social and institutional framework in which the economic activity takes

place. It is argued that by considering the political economy a researcher is better able to consider broader (society) issues which impact on how an organization operates, and what information it elects to disclose.

Empirical Review

Etim, Ndom and Asuquo (2021), investigated the effect of governance sustainability disclosures on corporate performance of quoted Oil and Gas companies in Nigeria. Simple random sampling was used to select twelve (12) Oil and Gas companies and data were extracted from the published annual reports and financial statements of sampled companies. Data were analyzed using panel linear regression technique. The results revealed that governance sustainability disclosures had a negative and insignificant effect on Return on Assets (ROA), but introduction of control variables (age and size) into the model showed that governance sustainability disclosures had a direct and insignificant effect on Return on Assets (ROA). It was concluded that governance sustainability disclosures showed mixed effect on corporate performance of firms in the Oil and Gas industry in Nigeria.

Mpuon, Eyo and Kajang (2020), carried out a study on supply chain planning and business performance of Nigeria Oil and Gas industry. The research instrument was structured questionnaire and statistical tool adopted was correlation analysis. Pearson's product moment correlation was used to test hypotheses and the demographics of the respondents were analyzed using frequency and simple percentages. The finding revealed that supply chain planning has a significant positive correlation with business performance dimensions such as market share, sales growth and demand forecasting in Nigerian Oil and Gas industry.

Akubuko, Obodo, Musa and Jimoh (2019), studied procurement management practices impact on vendors' performance using Oil producing firms in Rivers State of Nigeria as a case study. Ten (10) firms were purposively selected based on their sizes. The survey approach was employed for the study, while chi-square statistical tool was used to analyze the data generated through questionnaire. The result of the study revealed that significant relationship exist between procurement management practices and vendors' impact such as product quality, profitability level and cost effectiveness.

Deegan (2017), carried out a research on the effect of sustainability reporting on organizational performance. The study made use of secondary data using ordinary least square regression analysis. The findings revealed that sustainability reporting has no significant effect on corporate performance. The study recommends that organizations should ensure that they report their social, economic, and environmental

activities in order to enhance their performance. However, Bebbington (2017), studied the effect of sustainability reporting on firms profitability. Secondary data collected were analyzed using ordinary least square regression analysis. The findings revealed that sustainability reporting has a significant effect on firms' profitability. The study recommends that organizations should ensure that they report their social, economic, environmental activities for increase in profitability.

Ezeabasili (2017), carried out a research on the impact of sustainability reporting on stock value of corporate firms in Nigeria. The study made use of secondary data extracted from annual reports and accounts of selected companies in Nigeria. The study employed correlation analysis, pooled OLS estimation, fixed effect and random effect estimations, granger causality estimation and post estimation test such as restricted f-test and Hausman test. Result revealed that there is weak negative correlation between sustainability reporting and stock value of corporate firms in Nigeria.

Duke and Kankpang (2016), conducted a study on corporate social responsibility practice and corporate performance of selected deposit money banks in Nigeria. Using data from the annual reports of five topmost Deposit Money Banks (DMBs) in Nigeria; namely First Bank of Nigeria (FBN), Zenith Bank, GT bank, United Bank for Africa (UBA) and Access bank. Philanthropic responsibilities was used as the sole dimension of CSR, while market share (MS) and liquidity were used as the measures of corporate performance. The regression technique for data analysis, it was found that there is positive and significant association between CSR and MS; and that there is no significant association between CSR and Liquidity. Based on this, it was concluded that banks in Nigeria can improve their market share through improved CSR practices; while liquidity cannot be improved by CSR. The study recommended that CSR practices be fully incorporated into the Nigerian banking sector, with regulatory bodies empowered to ensure conformity to extant rules and standards; Banks should view CSR as a means of achieving some corporate objectives.

Research conducted by Burhan & Rahmanti (2012) ascertained the relationship between sustainability reporting and company performance. Using a sample of thirty two (32) companies listed on the Indonesian stock exchange during the period 2006 – 2009, the study used linear regression model as well as multiple regression and the study revealed that sustainability reporting does have an association with company performance, however, only social disclosure partially influences the company performance.

Ngwakwe (2008) established a positive relationship between sustainable business practices and firm performance. Using a field survey methodology, a sample of sixty (60) oil and gas companies in Nigeria was studied. An investigation was undertaken into the possible relationship between firm performance and three selected indicators of sustainable business practices: employee health and safety (EHS), waste management (WM), and community development (CD). This study revealed that the sustainable practices of the firms are significantly related with firm performance. The paper concludes that, within the Nigerian setting at least, sustainability affects corporate performance.

Methodology

The research design adopted for this study was ex-post facto research design. The population was made up of 13 quoted oil and gas companies in Nigeria. The study adopted judgmental sampling and 5 oil and gas firms were selected based on availability of data. The firms sampled included; Con-oil oil, Forte Oil, was used as a means of eliciting the required information needed for this research. The secondary data was obtained from the corporate annual reports and websites of the selected listed companies for the period 2009-2018 (10 years).

Data collection techniques (Pillars of sustainability disclosures)

S/N	Social Indices	Economic Indices	Environmental Indices
1	-peace & harmony	-intangible assets	-renewable energy
2	-social justice	-contingent liabilities	-reduction of fossil fuel
3	-poverty reduction	-residual income	-fishery & aquatic life
4	-social equity	-cash flow movement	-organic farming
5	-community relation	-distribution of income	-tree planting & recycling
6	-cultural practices	-resource control	-waste management
7	-quality of life	-inflation accounting	-air & water pollution
8	-norms & wellbeing	-demand & supply status	-gas flaring
9	-cost of living index	-price index	-global warming
10	-social strata	-government policy	-climate change

Source: Researchers' field survey, 2019

The above disclosure checklist was drawn and used in constructing proxy for pillars of sustainability disclosures in tables (1- 5 below. Each pillar has ten (10) items in the checklist and scored on the assumption that disclosing of any of the item indicates compliant with sustainability disclosure (Alpheaus, 2021). Furthermore, each pillar of sustainability was assigned a value of '1' if six (6) and above items on the checklist were disclosed but '0' if less than six (6) items was disclosed and classified as unsustainability report (financial statements and annual report) of the organization investigated. Note that items not applicable and unknown are coded 'NA' (Not Applicable).

In testing the hypotheses, ordinary least square based multiple regression analysis was used.

Model specification

The models for this study are stated as follows;

$ROA = \beta_0 + \beta_1 SD + \beta_1 ED + \beta_1 END + e$ ---------------------------(1)

Where;

ROA = return on asset (profit after tax dividend by net asset)

SD = social performance disclosure (measured using content analysis)

ED = economic performance disclosure (measured using content analysis)

END = environmental performance disclosure (measured using content analysis)

β_0 =Intercept term

β_1 =Slope co efficient

e = error term

Data Presentation, Analysis and Results

Data Presentation

Table 1. Data on social, economic and environmental disclosure as well and ROA of Conoil Plc

Year	Social disclosure	Economic disclosure	Environmental disclosure	ROA
2009	1	1	0	0.40
2010	1	1	0	0.51
2011	1	1	1	0.59
2012	1	1	0	0.69
2013	1	1	1	-0.1
2014	1	1	1	0.57
2015	1	1	1	-0.02
2016	1	1	1	0.52
2017	1	1	1	0.61
2018	1	1	1	0.40

Source: Researchers' computation (2020)

Table 2. Data on social, economic and environmental disclosure as well and ROA of Fortoil Plc

Year	Social disclosure	Economic disclosure	Environmental disclosure	ROA
2009	0	1	0	1.32
2010	0	1	0	1.39
2011	1	1	0	1.41
2012	1	1	1	1.42
2013	1	1	1	1.21
2014	1	1	1	1.18
2015	1	1	0	1.23
2016	1	1	1	1.09
2017	1	1	1	1.03
2018	1	1	1	0.99

Source: Researchers' computation (2020)

Table 3. Data on social, economic and environmental disclosure as well and ROA of Capital Plc

Year	Social disclosure	Economic disclosure	Environmental disclosure	ROA
2009	1	1	0	0.45
2010	1	1	0	0.50
2011	1	1	1	0.61
2012	1	1	0	0.36
2013	1	1	1	0.51
2014	1	1	1	0.57
2015	1	1	1	0.42
2016	1	1	1	0.32
2017	1	1	1	0.31
2018	1	1	1	0.44

Source: Researchers' computation (2020)

Table 4. Data on social, economic and environmental disclosure as well as ROA of Total Plc

Year	Social disclosure	Economic disclosure	Environmental disclosure	ROA
2009	0	1	0	0.35
2010	0	1	0	0.42
2011	1	1	0	0.40
2012	1	1	1	0.41
2013	1	1	1	0.25
2014	1	1	1	0.19
2015	1	1	0	0.27

2016	1	1	1	0.19
2017	1	1	1	0.13
2018	1	1	1	0.29

Source: Researchers' computation (2020)

Table 5. Data on social, economic and environmental disclosure as well and ROA of MRS oil

Year	Social disclosure	Economic disclosure	Environmental disclosure	ROA
2009	0	0	0	1.32
2010	1	0	1	1.39
2011	1	1	1	1.41
2012	0	1	1	1.42
2013	0	1	1	1.21
2014	1	1	0	1.18
2015	1	1	0	1.23
2016	1	1	1	1.09
2017	1	1	1	1.03
2018	1	1	1	0.99

Source: Researchers' computation (2020)

The above tables revealed Return on asset (dependent variable) and social disclosure, economic disclosure and environmental disclosure (independent variables). The adjusted R square which is the coefficient of determination and the F statistic were used to ascertain the significance of the overall model. Specifically, the probability of the F-statistic test was used to test the hypotheses of the study to determine the relationship between the variables (See appendix 'I' for detailed analysis)

Table 6: Summary of analysis and results (See appendix I)

Test results	**Interpretations**
P- value =0.16, 0.29 & 0.17 > .05	Decision: Accept null H_0 & reject H_1
R-square = 0.148 or 14.8.1%	14.8% of the sample variation in the dependent variable return on assets is explained or caused by the explanatory variable while 85.2% is unexplained.
Adjusted R^2 = 0.092 or 9.2%	The value of the adjusted R^2 is 0.092. This shows that the regression line which captures 9.2 per cent of the total variation in return on assets is caused by variation in the explanatory variable specified in the model with up to 90.8 per cent accounted for the stochastic error term.

F-Statistics = 2.657835	The F-value of 2.657835 is an indication that the model is not statistically significant at 5 percent level of significant.
DW test = 1.842348	The test of autocorrelation using DW test shows that the D.W value of 1.842348 falls outside the conclusive region of DW partition curve. Hence, we can clearly say that there is no existence of autocorrelation.

Test of hypothesis one

H_{01}**:** Social reporting has no significant effect on return on assets of listed oil and gas in Nigeria.

The F statistic with 2.657835 has probability of 16% level of significance. Since the probability of the F statistics is greater than 5% level of significance, we would accept the null hypothesis, H_0 and therefore conclude that social reporting has no significant effect on return on assets of listed oil and gas in Nigeria.

Test of hypothesis two

H_{01}**:** Economic reporting has no significant effect on return on assets of listed oil and gas in Nigeria. The F statistic with 2.657835 has probability of 29% level of significance. Since the probability of the F statistics is greater than 5% level of significance, we would accept the null hypothesis, H_0 and therefore conclude that economic reporting has no significant effect on return on assets of listed oil and gas in Nigeria.

Test of hypothesis three

H_{01}**:** Environmental reporting has no significant effect on return on assets of listed oil and 1gas in Nigeria. The F statistic with 2.657835 has probability of 17% level of significance. Since the probability of the F statistics is greater than 5% level of significance, we would accept the null hypothesis, H_0 and therefore conclude that social reporting has no significant effect on return on assets of listed oil and gas in Nigeria.

Discussion of Findings

Based on the objectives of this study, data analysis, and discussion of findings, the following findings were summarized:

(i) Social reporting has no significant effect on return on assets of oil and gas in Nigeria

(ii) Economic reporting has no significant effect on return on assets of oil and gas in Nigeria

(iii) Environmental reporting has no significant effect on return on assets of oil and gas in Nigeria.

The above findings were in agreement with the findings of Ezeabasili (2017), but in disagreement with the findings by Etim et al (2020) where their results revealed mixed effect (direct and insignificant effect), because of the use of control variables on the independent variables model, otherwise the result would have been insignificant like our findings on this study. Also, Akubuko et al (2019), revealed a significant effect of sustainability reporting on product quality, profitability and cost effectiveness. This points out to

the fact that sustainability reporting would have positive and significant effect on profitability if the organization is verse in product innovation and encourages cost effectiveness in its operations.

Conclusion

Generally, it can be seen from this study that sustainability disclosures have weak impact on financial performance indicators used in the study. In the empirical review above, it was observed that sustainability disclosures alone would not affect profitability positively and this calls on organizations to invest in product innovations and cost effectiveness practice in their operations. It is important to note that sustainability disclosures would bring long-run reward on the investment, when the legitimacy of the operation of the entity is established and reasonable market share is enjoyed. Environmental, social and economic disclosure indices are all negative as revealed by our investigation. This may be largely due to its non–disclosure practice in some companies investigated. However, increased sustainability disclosure may likely change the narratives on the performance measures used in the study by introducing control variables on the model (Etim et al; 2020).

Recommendations

The following suggestions are put forward based on the findings of this study.

(i) Oil & Gas firms should ensure that they disclose their social activities in order to attract patronage and enhance their performance level.

(ii) Corporate firms should focus more on their economic activities and disclose same in the annual report so that stakeholders can rely on the published financial statements in their investment decision.

(iii) There is the need to adopt standardized Sustainability Index that will help in enforcing environmental disclosures. Corporate firms should pay more attention to their environmental activities for sustainable development.

Finally, there is need to have unified reporting standards and guidelines in Nigeria. This is because sustainability reporting is rapidly evolving, different standards and frameworks have emerged.

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