

## SUSTAINABILITY DISCLOSURES AND ITS IMPACT ON FIRM'S VALUE IN NIGERIA

Ayeni-agbaje, A.R\*<sup>1</sup>, Olaniyan. N.O\*<sup>2</sup>, Adebayo A.I\*<sup>3</sup>

\*<sup>1,3</sup>Department of Accounting, Faculty of Management Science  
Ekiti State University, Nigeria

\*<sup>2</sup>Department of Accounting, Faculty of Management Science  
Federal University Oye Ekiti Ekiti State, Nigeria

### **Abstract**

*This study examined the effect of sustainability disclosure on firms value of listed oil and gas companies in Nigeria; it specifically examined the effect of social sustainability disclosure, environmental sustainability disclosure, economic sustainability disclosure as well as corporate governance sustainability disclosure on market share of listed oil and gas companies in Nigeria. The study adopted an ex-post-facto research design and secondary data was gathered to analyze the relationship between the variables. The population of the study consisted on twelve oil and gas companies listed on the Nigerian Exchange Group as at 5<sup>th</sup> March, 2021; however; only eight (8) samples were selected from the population. The data was collected from the annual audited financial reports of the eight (8) oil and gas companies sampled for the investigation for the periods 2000-2020. Panel data was used which consists of 760 observations analyzed using multiple regression model. Robust regression model was used to test the effect of cultural diversity and other environmental factors. The Hausman test result revealed that social sustainability disclosure has positive and significant effect on market share with coefficient of 0.017 which is significant at 5% ( $p=0.000$ ), economic sustainability disclosure has positive and significant effect on market share with coefficient of 0.0801 which is significant at 5% ( $p=0.049$ ), environmental sustainability disclosure has positive and significant effect of 0.00031 which is significant at 5% ( $p=0.038$ ) while corporate governance sustainability disclosure has negative and insignificant effect on market share with coefficient of -1.395 with ( $p=0.0540$ ) at 5% level of significance. The study therefore, concluded that sustainability disclosure have strong statistical relationship with the firm value of the selected oil and gas companies in Nigeria. The study recommends among other things that social sustainability disclosure, economic sustainability disclosure and environmental social disclosure are important variables to consider when the management of sampled companies decides to examine the effect of sustainability disclosure on firm's value of listed oil and gas companies in Nigeria.*

**Keywords:** Economic Sustainability Disclosure, Environmental Social Disclosure, Social Sustainability Disclosure, Market Share

## **1. Introduction**

Reaching the goal of sustainable development has risen to the top of international agendas. Data presented in a company's annual report is highly relied upon by Nigerian and international investors and other stakeholders in today's business environment. Any data that can be made available to investors will help them determine the true value of a company. They needed details on the company's future prospects in addition to its past achievements. In light of the current global financial and economic crisis, increased sharp business practices, climate change, ozone depletion, water scarcity, and other challenges, it is in the public interest for businesses to report comprehensively on all activities and uncertainties that users need to make correct judgments about a business. A corporate report is published on a regular basis to update those who are not directly involved in the running of the company on the actions taken by management. The decisions made by some of these groups will have far-reaching effects on society, ecosystems, and the economy, and will threaten the ability of future generations to provide for their own needs. Because of this, consumers look for disclosures that point out which businesses can be trusted and which ones should be avoided.

The information provided in the typical corporate report is insufficient for investors to evaluate the significant risks created by corporations' actions. Several key mechanisms for creating value are typically glossed over in standard business reports. There has been a lot of criticism leveled at the current system of corporate reporting in recent years for allegedly being too opaque and not providing enough information for stakeholders to evaluate a company's performance and worth. Fundamental questions have been raised about the efficiency of capital markets and the degree to which current corporate disclosures highlight systemic risks and the true cost of doing business as a result of climate change, natural resource depletion, and the economic downturn. The downfall of well-known corporations in both developed and emerging countries has severely challenged the trust of some individuals in the financial system.

In response to the widespread mistrust in conventional annual reports, several have advocated for a shift to a more transparent reporting framework. By identifying all the problems that have a meaningful influence on the business model, this model will provide a strategic overview of the firm. Businesses have started reporting on other, non-financial measures alongside the traditional financial statistics in response to these expectations and concerns (Cohen et al., 2012; KPMG, 2011). An alternative reporting model, in which the ups and downs of an organization's performance are displayed side by side to allow for a fair appraisal of the total, is required to combat the shortcomings of conventional financial reporting. Reporting on both financial and nonfinancial data connected to ESG may help alleviate the situation (Environmental, Social, and Governance). There has been a rise in the prevalence of reporting on emerging environmental, social, and governance (ESG) issues.

Sustainability reports are gaining popularity across the world. Sustainability reporting sometimes intersects with other methodologies including 'triple bottom line' reporting, 'corporate responsibility,' and 'environmental, social, and governance' (ESG) reporting (ESG) Non-financial information and the business's performance in respect to sustainable development are the primary foci of sustainability reporting. Investment analysis, securities selection, portfolio creation, and risk management with environmental, social, and governance considerations (BSR 2012). When examining the breadth of such disclosures in emerging economies, Sobhani, Zainuddin, and Amran (2011) found that corporate sustainability disclosure lagged behind. Sustainable reporting practices are still mostly optional in Nigeria, and the level of disclosure is low. Businesses in Nigeria offer a diverse set of sustainability reports because they use a broad variety of reporting methods and follow a variety of reporting frameworks. KPMG's (2011) assessment that Nigeria is at the bottom of the corporate sustainability quadrant is spot-on. Businesses in Nigeria often only provide a fraction of their environmental initiatives. The notion that just 2% of Nigerian firms publish any information relevant to sustainability is supported by statistics presented by Isa (2014). On the other hand, as noted by Fifka and Meyer (2013) and Ngwakwe (2013), ESG integration has made substantial strides in a number of emerging countries during the last decade. Companies in both developed and emerging economies are finally responding to investor demands by providing them with a sustainability report for the first time in over a decade (Ceulemans, Molderez, & Van Liedekerke, 2015).

Because so many businesses, both well-established and startups, are making sustainability declarations, the topic of sustainability disclosures has been the subject of much research. However, it is difficult to piece together the varying findings of this empirical study on the impact of sustainability reporting on enterprise value. In line with this method, Joseph (2016) evaluated the literature on the impact of sustainability reporting on company performance and found that academics are divided on whether or not firms can maximize value by adopting sustainability reporting. Moreover, despite the abundance of literature on the subject, the oil and gas industry which contributes around 40% to GDP, 70% to budget income, and 95% to foreign currency profits has been largely ignored (NBS 2021) Even while these studies have gathered information from all NSE-listed firms, they have not focused on any one sector of the economy. Both the unique aspects of each company and the universal characteristics they all share must be kept in mind. Because of this, valuing a business based on its after-tax profit at the end of the fiscal year does not provide a fair picture of the correlation between sustainable disclosure and company value. This study fills an important need in the literature by examining the relationship between market share and firm value in the oil and gas industry.

The primary objective of this study is to examine the effect of sustainability disclosure on firms value of listed oil and gas companies on Nigeria Stock Exchange. While the specific objectives are to:

- examine the influence of economic disclosure on market share of listed oil and gas companies in Nigeria Exchange Group

- establish the effect of social disclosure on market share of listed oil and gas companies in Nigeria Exchange Group
- determine the effect of environmental disclosure on market share of listed oil and gas in Nigeria Exchange Group
- examine the effect of corporate governance disclosure on market share of listed oil and gas in Nigeria Exchange Group

## **2.1 Conceptual Exploration**

### **2.1.1 Sustainability Disclosure**

Disclosures on sustainability might include both numerical and qualitative data (Schaltegger, 2012). Several standards and suggestions from various organizations concerning the form and quality of sustainability reporting exist to make sustainability disclosures more comparable and believable. The United Nations established the Global Compact initiative to encourage sustainable business practices by having major firms commit to and report on 10 sustainability principles. Global Reporting Initiative (GRI), International Organization for Standardization (ISO) (ISO 14000 and ISO 26000), Sustainability Accounting Standards Board (SASB), Carbon Disclosure Project (CDP), and Global Framework for Climate Risk Disclosure are just some of the many initiatives and organizations that have developed guidelines for E&S R. (Overland, 2007; Siew, Balatbat, & Carmichael, 2013). Since firms utilize such a wide array of frameworks to disclose their sustainability initiatives, Reddy & Gordon (2010) and others have noted that the form and content of sustainability reports may vary greatly (Finch, 2005). Environmental, social, and corporate governance transparency are leading indications of a company's commitment to long-term development and sustainability, and so stand to benefit both the company and its stakeholders (Eccles, Ioannou, & Serafeim, 2012). Elkington shows that when companies consider all three of these criteria together, they increase their chances of successfully implementing a plan for sustainable growth (1994). The European Commission demonstrated its commitment to sustainable development in Europe by presenting the United Nations 2030 Agenda at the 2019 Sustainable Development Goals Summit. In their analysis of the effects of sustainability disclosure on stock markets, academicians Caplan, Griswold, and Jarvis concluded that ESG variables had a major bearing on responsible investment (2013). In 2010, the US Securities and Exchange Commission recognised ESG's significance by providing guidelines on the disclosure of climate risk in response to requests from investors who regard sustainability disclosure as vital to their decision-making. Ailman et al. (2017) noted the significance of environmental, social, and governance (ESG) data on investment decisions and argued that the SASB's support for data standards would make it simpler for businesses to make sustainability disclosures.

The concept of "Firm Value" is shorthand for a company's current market value. According to Emeka,Nwokeji (2019), a company's market value is directly related to the confidence investors have in its management's capacity to foresee and adapt to changes in the business environment.

Tobin's q, a stock market-based valuation indicator with an eye toward the future, was used in this investigation. Traders often utilize Tobin's q because it provides a comparison between a company's market value and its book value. You may calculate a company's Tobin's Q by dividing its market value of equity (share price times number of outstanding shares) by its book value of debt (total assets minus book value of equity) and then dividing that amount by its total assets (Albuquerque, Durnev, & Koskinen, 2013). Value-for-money ratios are useful surrogates because they reflect investors' anticipation of a company's future profits (Campbell & Mnguez-Vera, 2008). The usage of Tobin's q as a valuation metric for businesses has grown in recent years.

## **2.2 Theoretical Framework**

The construct of this study was based on theory of stakeholders because is a business ethics and management framework that considers the interests of all parties involved in corporate decisions. Stakeholders of the Organizational Mind, written by Ian Mitroff and published in San Francisco in 1983, provides the earliest account of this phenomenon (Wikipedia, 2017). Whoever stands to benefit or suffer from the actions and choices of a company is considered a stakeholder. Stakeholder theory, as articulated by Argandona (1998), asserts that corporations are responsible to a wide variety of constituencies in addition to their stockholders. These constituencies include debtors, buyers, sellers, workers, citizens, government, the environment, future generations, and so on. The importance of integrated sustainability reporting in improving communication between businesses and the communities in which they operate was highlighted by King and Lenox (2001). When a company fails to consider the needs of its stakeholders, it risks damaging its reputation and, in turn, its bottom line. In conclusion, stakeholder theory recognizes businesses' place in the social system and directs attention to the many stakeholder groups (Ratanajongkol, Davey & Low, 2006). Stakeholder theory analyzes how businesses recognise and respond to the needs and interests of the communities in which they operate.

## **2.3 Empirical Review and Hypotheses Development**

### **2.3.1 Economic Disclosures and Firms Value**

Companies in both developed and developing countries have been reporting on their sustainability efforts in their annual reports for almost a decade. There has been a substantial increase in the literature on the issue of sustainability reporting in developed countries throughout this time period, but there have been very few systematic empirical analyses of responsibility/sustainability reporting in Africa (Fifka & Meyer, 2013). Due to the lack of literature on the problem, this study will draw theoretical and empirical references from research on aggregate sustainability disclosures and component sustainability (environmental, social, and governance) literature to fill the gap. To examine how sustainable accounting and reporting affects financial outcomes, Nnamani, Onyekwelu, and Ugwu (2017) looked at information from the Nigerian brewery industry. Success in the financial realm was patterned by Return on Assets and Return on Equity, while social responsibility spending as a percentage of total sales was used to assess sustainability report quality. Overall equity to total assets was shown to have little bearing on ROA.

Usman and Amran (2015) sought the same goal by researching the connection between CSR disclosures and CFP across Nigerian firms listed on stock exchanges. The items' capacity to be sustainably produced was evaluated using information provided by the company on the product's impact on the environment, the local community, its human resources, and the company's ethics. The bottom line and stock price of a firm tend to take a hit when environmental information is included in the annual report, according to research. This data implies that if Nigerian companies disclose environmental information, it might negatively impact their stock price. Accounting-based performance (Return on Assets) was shown to have a favorable correlation with community involvement disclosure, but the correlation between disclosure and market-based indices of success was found to be less (Share Price). Human resources disclosures, like return on investment, have a significant positive association with ROA and a neutral relationship with share price. Using data collected from 500 large Indian firms over a five-year period, Garg (2015) studied the effect of sustainability reporting on company value. According to studies, sustainability reporting has a negative effect on return on investment and Tobin's Q in the short term but has no effect on these metrics in the long run.

Sustainable business practices and financial performance were analyzed by Khan et al. (2015) using the sustainability materiality index, the sustainability immaterial index, and accounting performance metrics. They found that businesses who received high marks for how well they were handling material sustainability challenges were more likely to succeed in the future. Companies that excel in areas that are less critical actually underperform those who score worse overall. Plus, firms that score well on material difficulties and poorly on non-material ones usually do well in the long run. No matter what parameters were utilized, they demonstrated that portfolios built with the materiality index outperformed those built with the total index or the immateriality index. The same holds true when we run panel regressions at the business level, controlling for variables including analyst coverage, R&D investment, advertising, capital expenditures, board composition, and company and industry fixed effects.

Aondoakaa (2015) examines the financial performance of many notable publicly listed Nigerian firms in order to determine the impact of sustainability reporting on the bottom line. Across the four models, the study employs proxies for four different aspects of business value (ROA, ROE, NPM, and EPS), but just one proxies for SRI. Sustainability reports are positively correlated with ROI, according to the available data. A better return on investment (ROI) and net present value (NPV) may be expected from a company with strong sustainability metrics. Sustainability reporting is positively associated to EPS, whereas EPS is negatively related to environmental index. Hussain (2015) finds comparable results, concluding that reporting on an organization's sustainability efforts boosts both its market value and its financial success. Findings from this study show that financial success is not relevant in the same way for each of the four sustainability indicators (economic, social, and environmental). There is a positive correlation between environmental and social aspects and a company's bottom line, although the economic component is ultimately immaterial.



Mervell et al.(2015) investigate how ESG performance is valued by investors. There was a positive relationship between corporate governance performance and market value, but a negative relationship between environmental and social performance and market value. Furthermore, they disprove the claim that ESG performance evaluations are meaningful and demonstrate their ineffectiveness. Yu and Zhao (2015) utilize the Dow Jones Sustainability Index to demonstrate a positive relationship between sustainability performance and business value after controlling for other variables known to affect corporate value. Findings provide support to the idea that CSR initiatives may boost a company's value. Because of this, the value of businesses that show concern for society and the environment by acting ethically and legally increases. Sustainable development was found to be more highly valued in countries that provided better security for financial investments. Increases in market capitalization are expected for firms that do well in the more transparent financial markets. While researching the impact of corporate sustainability reporting on the profits of Nigerian banks, Nwobu (2015) discovered a weak positive association between the sustainability reporting index and Profit After Tax (PAT).

The sustainability reporting index also had a marginally positive correlation with shareholder wealth. Bhatia and Tuli (2014) surveyed firms in India that produced a separate sustainability report, and used the results to assess the breadth and depth of sustainability reporting in the country. The disclosure ratings did not show any statistically significant differences across sectors. When we compared the median disclosure ratings across the different industries using a one-way analysis of variance, we didn't find any statistically significant differences. According to Ioannou and Serafeim (2014), the average treated businesses in our sample profited from the necessity of obligatory corporate sustainability reporting because of a positive and statistically significant association between Tobin's Q and the projected component of the ESG disclosure. As the number of disclosures increases, so does the company's worth, as shown by Tobin's Q. Eccles, et al,(2014) give empirical evidence that High Sustainability businesses outperform

Low Sustainability enterprises in the stock market and in the books over the long run. Generally speaking, market leaders in sustainability enjoy better financial performance, including increased stock returns, lower volatility, and a greater return on invested capital. These examples show that firms may emphasize sustainability and social responsibility without jeopardizing their capacity to maximize profits for their shareholders. High Sustainability companies have considerably higher stock returns, suggesting that fostering a culture of sustainability might provide a competitive advantage. The authors postulate that stronger governance frameworks and better stakeholder engagement are the primary reasons for this outperformance. The impact of sustainability reporting on the value of a firm is unclear from the available literature. Empirical investigations of the link between sustainability and company financial performance have generated inconsistent findings, as observed by many writers, including Eccles et al. (2014) and Hussain. (2015), who reference Margolis & Walsh (2003). The results of these analyses have varied widely, from positive to negative to U-shaped to inverse-U-shaped. Given this, we make the following hypothesis:

H1a: Economic sustainability disclosure has significant effect on firm value

### **2.3.2 Environmental Sustainability Disclosures and Firms Value**

Environmental reporting in annual reports was positively correlated with company size, according to research by Eze, Nweze, and Enekwe (2016). Plumlee, Brown, Hayes, and Marshall utilize the cost of equity capital and cash flow projections to examine the connection between the quality of environmental disclosure and the value of a company (2015). Adjusting for environmental performance and decomposing environmental disclosures by kind and content allows the authors of the present study to separate out the many potential factors for the sometimes conflicting findings from past studies. They demonstrate a favorable relationship between the quality of voluntary disclosure and firm value by analyzing cash flow and cost of capital. According to research conducted by Hussain (2015), who examines the impact of Sustainability performance on the bottom lines of global Fortune 500 firms, there is no correlation between economic sustainability and either market success or accounting performance.

Reporting companies' financial success and their accounting transparency are positively correlated with indices of environmental and social sustainability. Transforming the financial structure is unrelated to sustainability reporting. Business value is positively impacted by environmental disclosure, social disclosure, and the governance disclosure index, as shown by research by Ioannou and Serafeim (2014). Companies' environmental management practices do not correlate with their return on equity, as shown by Nyirenda, Ngwakwe, and Ambe (2013). In particular, improving a company's energy efficiency, water use efficiency, or carbon emission reduction has no bearing on ROE. Makori and Jagongo (2013) looked at companies listed on India's Bombay Stock Exchange and discovered that environmental costs, which include things like pollution control and waste disposal, have a positive correlation with net profit margin and dividends paid to shareholders but a negative correlation with return on capital employed and earnings per share. Despite the positive and statistically significant effect that environmental sustainability performance has on top-line revenue, Cortez & Cudia (2011) found that it has only a little effect on bottom-line earnings and shareholder wealth. Given this, we make the following hypothesis:

H2a: Environmental sustainability disclosure has significant effect on firm value

### **2.3.3. Social Sustainability Disclosures and Firms Value**

Hasan et al.(2016) investigated the mediating role of total factor productivity in the link between corporate social responsibility and increased shareholder value creation, illuminating the underlying processes by which CSR leads to higher shareholder value creation. Researchers found that good corporate citizenship significantly boosted Tobin's Q. There is a strong positive correlation between productivity and performance. The mediation study further demonstrates that total factor production has a crucial role in mediating the CSPCFP connection. Gherghina, Vintilă, & Dobrescu (2015) find analytical evidence that CSR positively effects company value in a study of the link between CSR and firm value utilizing a sample of U.S. enterprises. Since corporations engaged in corporate social responsibility endeavors utilize their resources more efficiently to better meet the requirements of stakeholders, this data is compatible with the instrumental



stakeholder theory position. Using a coding index method, Khlif, Guidara, and Souissi (2015) analyze a sample of 168 firm-year observations from 2004-2009 in South Africa and Morocco to determine the level of social and environmental disclosure in annual reports and the correlation between this disclosure and financial performance. They show that social and environmental disclosure significantly improves a company's financial success. Nnamani et al. (2017) conducted the latest research in this area by analyzing data from the Nigerian brewery sector between 2010 and 2014. Sustainability reporting was evaluated based on the ratio of social responsibility expenses to total revenues (TPCT), while financial success was represented by the Return on Assets and Return on Equity metrics. Total equity to total asset (TETA) ratio was shown to have no statistically significant impact on ROA (ROA). Further, the ratio of total personnel costs to turnover (TPCT) shows little correlation with ROA (ROA). Studying the correlations between CSR and financial success in the form of stock returns for a sample of US enterprises over a two-year period, Vujicic (2015) found mixed results. These findings are compared to a corporate social responsibility score by using a set of disaggregated social responsibility metrics for the environment, community, and employment. Whether looking at an aggregate rating or at specific factors, the analysis shows that companies with greater social responsibility ratings likely to generate lower stock returns. Therefore, we postulate that

H3a: Social sustainability disclosure has significant effect on firm value

### **2.3.4 Corporate Governance Disclosures and Firms Value**

A substantial positive link exists between board compensation and dividend yield, but not return on asset, return on employee or earning per share, according to research conducted by Ruparelia and Njuguna (2016). When broken down into subsets of the financial market, the findings revealed the existence of a statistically significant link between board compensation and dividend yield in the banking industry. Return on Assets, Return on Equity, and Earnings per Share were not disclosed. Board compensation was shown to have a statistically significant association with Return on Assets (ROA) solely in the insurance industry, while no such correlation was found in the investment industry. According to research by Sila, Gonzalez, and Hagendorff (2016), companies with more women on their boards of directors had lower equity risk. Using Structural Equation Modeling (SEM), Haryono and Paminto (2015) discover that good company governance has a considerable favorable impact on financial results. Aggarwal (2013) uses the Indian setting to empirically investigate whether or not corporate governance and corporate profitability are linked. They conclude that the governance rating of a business has a substantial influence on return on equity (ROE), but not on the other three profitability indicators. There is a positive correlation between corporate governance mechanisms and Firms Value, as shown by the empirical data provided by Gull, Saeed, and Abid (2013). In their 2012 study, Bubbico, Giorgino, and Monda look at the relationship between corporate governance and the market value of publicly traded Italian financial institutions. The results reveal that good corporate governance correlates positively with the market value of banks and other financial organizations. Size of the board, gender diversity on the board, and the presence of an audit committee are all found to have a

positive and statistically significant effect on a company's market value by Emeka-Nwokeji (2018), while board independence and board remuneration are found to have a negative and statistically significant impact on the market value of the companies in the sample. Researchers found that whereas auditors' reputation had a little beneficial influence on market value, directors' ownership had a small negative effect. Considering the prior result, it seems sense to check the following null assertions: Therefore, we postulate that

H4a: Corporate governance disclosure has significant effect on firm value

### 3. Methodology

The purpose of this study is to investigate the effect of sustainability disclosure on the market value of publicly traded oil and gas businesses in Nigeria. This is why a group of twelve oil and gas companies listed on the Nigerian Stock Exchange (NSE) was selected as the participation pool. By the end of 2021, twelve (12) oil and gas companies were recognized as NGX participants. Only eight of the twelve publicly listed oil and gas corporations were examined for this analysis (Total Oil Plc, Forte Oil Plc, Oando Plc, Conoil Plc, Mobile Oil Plc, Shell Plc, Chevron Plc, and Energy Oil Plc). Companies in the oil and gas sector are an excellent sample for this study since they have been active in cross-border trade for the last 15 years and the oil and gas industry is a key contributor to development in the Nigerian economy (collectively accounting for nearly 70% of market capitalization) (from 2006 to 2020). Within that framework of analysis, hypotheses were established to evaluate the factors vital to the long-term profitability of the oil and gas business using empirical research from the published works of numerous academics. Literature study studies provide credence to the idea that implementing sustainable practices improves oil and gas industry performance; however, the sorts of practices that contribute to this improvement depend on the particulars of the company's operations.

#### Model Specification

The model of the study stated below was based on the functional relationship between sustainability disclosure and firm value of oil and gas companies in Nigeria:

$$PERF_t = f(SCELER_t) \dots\dots\dots 1$$

However, this study modified the model stated in equation (1) and was specified as follows:

$$MKTS=f(ESD, CGSD, SSD, ENSD).....2$$

$$MKTS=a_0 + a_1ESD + a_2CGSDa_3SSD + a_4ENSD +\mu.....3$$

Where:

MKTS= Market share

ESD= Economic sustainability disclosure

CGSD= Corporate governance disclosure

SSD= Social sustainability disclosure

ECND= Environmental sustainability disclosure

$a_0$  = Intercept or constant term of the model

$a_1$  and  $a_a$  = Parameters to be estimated.

$\mu$  = Error term

### Estimation and Diagnostic Techniques

This research used a number of different methods for estimating variables, including descriptive analysis, correlation, and the Panel data regression methodology. Statistical tests such as the R-squared test, the standard error test, the student t-test, the probability value test, and the F-test for significance in fitted models were performed

**Table 1 Description of proxies for variables of the study**

S/N	VARIABLES	SYMBOL	MEASUREMENT
	<b>Dependent Variable</b>		
1	<b>Market share</b>	MKTS	It's a measure of how well a business is doing financially. It is the money left over after a company has paid its income taxes. This surplus represents the company's earnings.
	<b>Independent Variables</b>		
1	<b>Social Sustainability Disclosure</b>	SSD	Disclosure of Community Participation (provision for disable people, donations, support for education, support for health care services, water supplies, skill acquisition training, sponsoring for recreational facilities and combating corruption, scholarship)
2	<b>Economic Sustainability Disclosure</b>	ESD	Information sharing pertaining to human resources (including but not limited to: pension and gratuity, worker health and safety, welfare, training, compensation, and pay)
3	<b>Environmental Sustainability Disclosure</b>	ENSD	Policies, concerns, and investment strategies related to the environment, as well as the recycling of trash, the prevention of pollution in the air and water, and the education of the public, should all be made public.
4	<b>Corporate Governance Sustainability Disclosure</b>	CGSD	Aligning employees' priorities with corporate goals and maintaining employee engagement in a new location with a different culture incurs additional costs.

## 4. Findings and Discussion

### 4.1 Descriptive Statistics

The dependent variable, MKTS, had a mean value of -5.23, as shown in Table 2, while the standard deviation, which quantified the amount of data series variation, was 0.41. The skewness of the distribution of the series around the mean was 1.62, which is a positive number. Therefore, most of the variables that affect MKTS, such as AS, ESD, CGSD, SSD, ENSD also have lengthy right

tails. Moreover, MKTS was skewed since its Kurtosis, a measure of the peakness or flatness of the distribution, was 4.02 instead of the anticipated 3.0 for normally distributed data series. Standard deviations for ESD, CGSD, SSD, and ENSD mean scores were 0.14, 10.21, 4.00, and 17.17, whereas those for ESD, CGSD, and SSD were 0.14, 0.09, and 17.17. As the very high standard deviation of 126.09 demonstrates, there were substantial variances in the value of ENSD across the examined organizations. Differences between the most and least extreme values show that the companies under consideration are comparable. Kurtosis values suggest that most of the research variables were highly selected. This is especially true of ESD, CGSD, SSD, and ENSD. All of the research variables were favorably skewed with the exception of ENSD.

**Table 2.Descriptive Statistics of Variables**

Variables	Maximum	Minimum	Mean	SD	Kurtosis	Skewness
MKTS	1.81	-4.37	-5.23	0.41	4.02	1.62
ESD	202.90	- 312.06	-2.06	0.14	11.66	1.12
CGSD	0.59	-0.94	0.09	10.21	79.97	27.77
SSD	57.13	-0.22	2.85	4.00	53.87	5.37
ENSD	176.27	79.92	2.14	17.17	38.48	-1.05

**Source: Authors computation, (2022).**

Where **MKTS**= Market share, **ESD**= Economic sustainability disclosure, **CGSD**= Corporate governance disclosure, **SSD**= Social sustainability disclosure , **ENSD**= Environmental social disclosure

## 4.2 Correlation Analysis

Multi-collinearity is tested by looking at the correlation in Table 3. Previous research (Gujarati & Porter, 2003) reported by Khanh & Thuong (2009) suggests that a multi-collinearity issue may arise if the correlation between two or more variables is lower than 0.8. (2019). The absence of a multi-collinearity issue may be deduced from this.

**Table 3. Pearson correlation coefficient matrix**

<b>Variables</b>	<b>MKTS</b>	<b>ESD</b>	<b>CGSD</b>	<b>SSD</b>	<b>ENSD</b>
MKTS	1.000				
AS	-0.006				
ESD	0.007	1.000			
CGSD	0.515	0.060	1.000		
SSD	-0.233	0.155	-0.005	1.000	
ENSD	-0.173	0.211	0.053	0.156	1.000

**Source: Authors computation, (2022).**

Where **MKTS**= Market share, **AS**= Asset Structure, **ESD**= Economic sustainability disclosure, **CGSD**= Corporate governance disclosure, **SSD**= Social sustainability disclosure , **ENSD**= Environmental social disclosure.

#### **4.3 Robustness Test**

Table 4 displays the outcomes of calculating the Variance Inflation Factor (VIF). The average VIF was 1.10, with ESD having the highest rating at 1.17. If the VIF number is more than 10, multicollinearity is likely. Since all VIF values were less than the cutoff value of 5, however, multicollinearity among the study model variables was not a major problem.

**Table 4. Variance Inflation Factor**

<b>Variables</b>	<b>VIF</b>	<b>Tolerance</b>
ESD	1.17	0.756489
CGSD	1.11	0.745789
SSD	1.11	0.757835
ENSD	1.07	0.785324
<b>MEAN</b>	<b>1.10</b>	

**Source: Authors computation, (2022).**

Where **AS**= Asset Structure, **ESD**= Economic sustainability disclosure, **CGSD**= Corporate governance disclosure, **SSD**= Social sustainability disclosure , **ENSD**= Environmental social disclosure Where **MKTS**= Market share, **ESD**= Economic sustainability disclosure, **CGSD**= Corporate governance disclosure, **SSD**= Social sustainability disclosure , **ENSD**= Environmental social disclosure as presented in table 5 ,

**Table 5: Panel Unit Root test of the Variables**

Variable	Statistic	P-Value
MKTS	-3.0738	0.0011
ESD	-9.1848	0.0000
CGSD	-7.9547	0.0000
SSD	-8.5729	0.0000
ENSD	-9.3079	0.0000

**Source: Authors computation, (2022).**

#### **Effect of Sustainability disclosure on Market share**

Table 6 shows that both ESD (=0.0021) and ENSD (=8.01, 0.00031,  $P > |t| = 0.000$ , 0.049, 0.038 0.05) have a favorable and significant influence on MKTS. The effects of CGSD and SSD on MKTS were unfavorable and statistically significant (=-1.395; -0.017; -0.00867;  $P > |t| = 0.000$ ).

We performed the Wald test, the Sargan test of instrument validity, and the Arellano-Bond test of higher order serial correlation AR (2), and the results are shown in the bottom section of Table 7. As shown by a Wald chi2 statistic of 5338.47 at a significance level of 0.000, the model fits the data rather well. The probability value for the Sargan test statistic is 0.432, and the value is 63.44. More specifically, the Z-statistic of the second order autocorrelation test AR (2) is 1.1384 with a probability value of 0.0043, as shown by the Arellano-Bond test for zero autocorrelation in first-differenced errors. Accordingly, because there is no autocorrelation, the test cannot reject the null hypothesis. This means that the model does not suffer from the issue of autocorrelation. This finding is reliable for policy inference, as shown by diagnostic statistics.



**Table 6. Sustainability disclosure on Market share**

<b>Explanatory variables and other statistics</b>	<b>MKTS Model (Two Step)</b>
MKTS <sub>t-1</sub>	<b>0.1155**</b> (0.000)
ESD	<b>0.0801**</b> (0.049)
CGSD	<b>-1.395**</b> (0.540)
SSD	<b>0.017**</b> (0.000)
ENSD	<b>0.00031**</b> (0.038)
Constant	<b>0.6314**</b> (0.000)
Wald chi2 Statistic	5338.47 (0.000)
Sargan Test	63.44 (0.432)
First order autocorrelation test	-1.8312 (0.0671)
Second order autocorrelation test	1.1384 (0.0043)
Firms	76
Observations	760

**Source: Author's computation, (2022).**

Note: \*\*, means significant at 5%. Bracket ( ) are p-values

Where **MKTS<sub>t-1</sub>** =Lagged Return on Assets, **MKTS**= Market share, **ESD**= Economic sustainability disclosure, **CGSD**= Corporate governance disclosure, **SSD**= Social sustainability disclosure , **ENSD**= Environmental social disclosure,

## **Discussion of Findings**

The fact that ESD had a positive and statistically significant impact on MKTS indicates that multinational corporations in Nigeria used ESD to affect their bottom line. The findings agree with those of Bubbico et al (2012). This goes against the grain of Clarkson et al. (2010), Cortez & Cudia. (2011), and Nigeria, but in line with Aggarwal, P. (2013). The impact of ENSD on MKTS was similarly beneficial and statistically significant. This argues that a number of MNCs operating in Nigeria used ENSD to carry out MKTS. The findings corroborate those of Bhatia and Tuli (2014), who studied the oil and gas industry in three sub-Saharan African nations, and those of Cortez and Cudia (2011), who looked at British businesses, although they diverge from those of other researchers (Bubbico et al,2012).

In contrast, the negative and statistically significant impact of CGSD on MKTS provides strong evidence that managers did not participate in MKTS through CGSD. Although Bubbico et al (2012). According to Clarkson et al. (2010), Cortez and Cudia (2011). In a similar vein, SSD has a major, detrimental impact on market share. This suggests that the companies in the survey did not use SSD for marketing. This accords with the results found by Eze et al (2016). Albuquerque,, Durnev, Koskinen,, Feyitimi,(2014), but not Fallatah, Dickins,(2012),Feyitimi,(2014) (2013). According to the findings of Delmas & Blass,(2010), the degree of market share among Nigeria's non-financial listed enterprises decreases as their operational cycles lengthen.

## **5. Conclusion and Recommendation**

The findings from the study revealed that aggressive Market share is positively correlated with social sustainability disclosure, whereas economic sustainability disclosure and environmental social disclosure have a favorable and substantial influence on market share while corporate governance sustainability disclosure has negative but significant effect on market share. Since sustainability disclosure has the potential to boost a company's bottom line, the research suggests that top executives at multinational companies invest heavily in the practice, seeing it as a vital driver of expansion, efficiency, and progress. However, they should put more of a focus on the utilization of existing assets to produce more income for stakeholders, which includes the acknowledgement of economic transparency for business and ecologically friendly for aggressive goals. Because of this, managerial effectiveness will improve. The study recommends that social sustainability disclosure, economic sustainability disclosure and environmental social disclosure are important variables to consider when the management of sampled companies decides to examine the effect of sustainability disclosure on firms value of listed oil and gas companies in Nigeria.

## References

- Abubakar, B. A., Garba, T., Sokoto, A. A., & Maishnu, A. A. (2014). Corporate board gender diversity and performance: Evidence from Nigerian stock exchange. *The Economic Journal of Nepal*, 34(4), 239-260.
- Aggarwal, P. (2013). Corporate governance and corporate profitability: Are they related? - A study in Indian context. *International Journal of Scientific and Research Publications*, 3(12), 1-8.
- Albuquerque, R., Durnev, A., & Koskinen, Y. (2013). *Corporate Social Responsibility and Firm Risk: Theory and empirical evidence*. Discussion Paper Retrieved September 2, 2018, from <https://www.cbs.dk/files/cbs.dk/cepr-dp9533.pdf>
- Aondoakaa, K. (2015). *Impact of sustainability reporting on corporate performance of selected quoted companies in Nigeria*. Enugu: Unpublished Ph.D Thesis University of Nigeria, Enugu Campus.
- Bhatia, A., & Tuli, S. (2014). Sustainable Disclosure Practices: A Study of Sensex Companies in India. *Indian Journal of Corporate Governance*, 7(1), 39-55.
- BSR. (2012). *Trends in ESG integration in investment. summary of the latest research and recommendations to attract long-term investors*. Retrieved 12 13, 2014, from [https://www.bsr.org/reports/BSR\\_Trends\\_in\\_ESG\\_Integration.pdf](https://www.bsr.org/reports/BSR_Trends_in_ESG_Integration.pdf)
- Bubbico, R., Giorgino, M., & Monda, B. (2012). The impact of corporate governance on the market value of financial institutions: empirical evidence from Italy. *Banks and Bank Systems*, 7(2), 11-18.
- Campbell, K., & Mínguez-Vera, A. (2008). Gender diversity in the boardroom and firm financial performance. *Journal of business ethics*, 83(3), 435-451. doi:DOI 10.1007/s10551-007-9630-y
- Ceulemans, K., Molderez, I., & Van Liedekerke, L. (2015). Sustainability reporting in higher education: A comprehensive review of the recent literature and paths for further research. *Journal of Cleaner Production*, 106, 127-143.
- Clarkson, P. M., Fang, X. H., Li, Y., & Richardson, G. (2010). *The relevance of environmental disclosures for investors and other stakeholder groups: Are such disclosures incrementally informative?* Retrieved June 16, 2016, from <http://www.ssrn.com/abstract=1687475>
- Cohen, J. R., Holder-Webb, L. L., Nath, L., & Wood, D. (2012). Corporate reporting of nonfinancial leading indicators of economic performance and sustainability. *Accounting Horizons*, 26(1), 65-90.
- Cortez, M. A., & Cudia, C. P. (2011). Sustainability and firm performance: A case study of japanese electronics companies. *Ritsumeikan International Affairs*, 10, 321-340.
- Delmas, M., & Blass, V. D. (2010). Measuring corporate environmental performance: the trade-offs of sustainability ratings. *Business Strategy and the Environment*, 19(4), 245-260.
- Eccles, R. G., Ioannou, I., & Sefaeim, G. (2014). The impact of corporate sustainability on organizational processes and performance. *Management Science*, 60(11), 2835–2857.

- Emeka-Nwokeji, N. A. (2017). Corporate governance and firm value: Evidence from quoted in Nigeria. *Finance and Accounting Research Monitor, Special Edition*, 227-241.
- Emeka-Nwokeji, N. A. (2019). Nexus between corporate social responsibility disclosures and market value of listed nonfinancial firms in Nigeria. *International Journal for Innovative Research in Multidisciplinary Field*, 5(3), 247-255.
- Eze, J. C., Nweze, A. U., & Enekwe, C. I. (2016). The effects of environmental accounting on a Finance *Research*, 4(1), 17-27.
- Fallatah, Y., & Dickins, D. (2012). Corporate governance and firm performance value in Saudi Arabia. *African Journal of Business Management*, 6(36), 10025-10034.
- Feyitimi, O. (2014). The level of financial information disclosure and corporate attributes in developing economy. *European journal of business and management*, 6(3), 176-188.
- Fifka, M. S., & Meyer, J. (2013). Corporate responsibility reporting and its determinants in comparative perspective –a review of the empirical literature and a meta-analysis. *Business Strategy and the Environment*, 22, 1-35. doi:DOI: 10.1002/bse.729
- Finch, N. (2005). *The motivations for adopting sustainability disclosure*. Sidney, NSW: Working Papers of Macquarie Graduate School of Management, Macquarie University.
- Garg, P. (2015). Impact of Sustainability Reporting on Firm Performance of Companies in India. *International Journal of Marketing and Business Communication*, 4(3), 38-45.
- Gherghina, S. C., Vintilă, G., & Dobrescu, D. (2015). An empirical research on the relationship between corporate social responsibility ratings and U.S. listed companies value. *Journal of Economics Studies and Research*, 2015, 1-11.
- Gull, A. A., Saeed, A., & Abid, A. (2013). Corporate governance and performance: An empirical evidence from textile sector of Pakistan. *African Journal of Business Management*, 7(22), 2112-2118.
- Hasan, I., Kobeissi, N., Liu, L., & Wang, H. (2018). Corporate social responsibility and firm financial performance: The mediating role of productivity. *Journal of Business Ethics*, 149(3), 671-688.
- Haryono, U., & Iskandar, R. (2015). Corporate Social Performance and Firm Value. *International Journal of Business and Management Invention*, 4(11), 69-75.
- Hussain, N. (2015). *Impact of sustainability performance on financial performance: An empirical study of global fortune (N100) firms*. Department of Management, Ca' Foscari University of Venice Working Paper Series n. 1/2015. Retrieved June 9, 2016, from <http://www.ssrn.com/abstract=2616835>
- Khlif, H., Guidara, A., & Souissi, M. (2015). Corporate social and environmental disclosure and corporate performance. *Journal of Accounting in Emerging Economies*, 5(1), 51 - 69.
- KPMG. (2011). *International Survey of Corporate Responsibility Reporting*. KPMG, De Meen NL.

- Ioannou, I., & Serafeim, G. (2014). *The consequences of mandatory corporate sustainability reporting: Evidence from four countries*. Harvard Business School Research Working Paper. Retrieved December 23, 2014, from <http://www.ssrn.com/abstract=1799589>
- Isa, M. A. (2014). Sustainability Reporting among Nigeria Food and Beverages Firms. *International Journal of Agriculture and Economic Development*, 2(1), 1-9.
- Joseph, U. B. (2016). Effect of Sustainability Reporting on Firm's Performance: A Review of Literature. *The International Journal Of Business & Management*, 4(7), 203-208.
- Khan, M., Serafeim, G., & Yoon, A. (2015). Corporate Sustainability: First evidence on materiality. *The Accounting Review*. Retrieved June 6, 2016, from <http://www.ssrn.com/abstract=2575912>
- Lubber, M., & Moffat, A. (2010). Integrated reporting: Long-term thinking to drive long-term performance. In R. G. Eccles, B. Cheng, & S. D. (Eds.), *The landscape of integrated reporting: Reflections and next steps* (pp. 207-210).
- Makori, D. M., & Jagongo, A. (2013). environmental accounting and Firm profitability: An empirical analysis of selected firms listed in Bombay stock exchange, India. *International Journal of Humanities and Social Science*, 3(18), 248-256.
- Margolis, J. D., & Walsh, J. P. (2003). Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly*, 268-305.
- Mervellskemper, L., Streit, D., & Bochum, R. (2015). Investors' perception of ESG performance: Is integrated reporting keeping its promise? Retrieved June 6, 2016, from <http://www.ssrn.com/abstract=2625044>
- Munoz, M. J., Rivera, J. M., & Moneva, J. M. (2008). Evaluating sustainability in organisations with a fuzzy logic approach. *Industrial Management & Data Systems*, 108(6), 829 - 841.
- Nnamani, J. N., Onyekwelu, U. L., & Ugwu, O. (2017). Effect of sustainability accounting and reporting on financial performance of firms in Nigeria brewery sector. *European Journal of Business and Innovation Research*, 5(1), 1-15.
- Ngwakwe, C. C. (2013). Independent assurance compliance of sustainable development disclosures in the Johannesburg stock exchange firms. *Corporate Ownership & Control* 10(2), 226-240.
- Nwobu, O. (2015). The relationship between corporate sustainability reporting and profitability and shareholders fund in Nigerian banks. *Journal of Accounting and Management*, 5(3).
- Nyirenda, G., Ngwakwe, C. C., & Ambe, C. M. (2013). Environmental Management Practices and Firm Performance in a South African Mining Firm. *Managing Global Transitions*, 11(3), 243-260.
- Osisoma, B. C. (2013). *Good corporate governance: The role of the accountant*. Presented at 2013 mandatory continuing professional development programme/induction of association of national accountants of Nigeria, held at crest hotel, rayfield, Jos, Plateau state. , Jos. Retrieved October 24, 2016, from [http://works.bepress.com/prof\\_ben\\_osisioma/10/](http://works.bepress.com/prof_ben_osisioma/10/)
- Overland, J. (2007). *Corporate social responsibility in context: The case for compulsory sustainability disclosure for listed public companies in Australia?* Macquarie University

- . Sydney: Macquarie Law Working Paper. Retrieved 12 23, 2014, from <http://www.ssrn.com/abstract=101660>
- Plumlee, M., Brown, D., Hayes, R. M., & Marshall, R. S. (2015). Voluntary environmental disclosure quality and firm value: Further evidence. *Journal of Accounting and Public Policy*, 34(4), 336361.
- Reddy, K., & Gordon, L. W. (2010). The effect of sustainability reporting on financial performance: An empirical study using listed companies. *Journal of Asia Entrepreneurship and Sustainability*, 6(2), 19-42.
- Ruparelia, R., & Njuguna, A. (2016). Relationship between board remuneration and financial performance in the Kenyan financial services industry. *International Journal of Financial Research*, 7(2), 247-255.
- Schaltegger, S. (2012). *Sustainability reporting in the light of business environments: Linking business environment, strategy, communication and accounting*. Lueneburg: Centre for Sustainability Management (CSM).
- Siew, R. Y., Balatbat, M. C., & Carmichael, D. G. (2013). The relationship between sustainability practices and financial performance of construction companies. *Smart and Sustainable Built Environment*, 2(1), 6-27. doi:10.1108/20466091311325827
- Sila, V., Gonzalez, A., & Hagendorff, J. (2016). Women on board: Does boardroom gender diversity affect firm risk? *Journal of Corporate Finance*, 36, 26-53.
- Sobhani, F. A., Zainuddin, Y., & Amran, A. B. (2011). Corporate sustainability disclosure practices of selected banks: A trend analysis approach. *African Journal of Business Management*, 5(7), 2794-2804.
- Thiagarajan, A., & Baul, U. (2014). Value reporting and integrated reporting in the era of intellectual capital (ic. *International Journal of Computational Engineering & Management*, 17(1), 42-56.
- Usman, A. B., & Amran, N. A. (2015). Corporate social responsibility practice and corporate financial performance: evidence from Nigeria companies. *Social Responsibility Journal*, 11(4), 749 - 763.
- Uwuigbe, U., Peter, D. S., & Oyeniyi, A. (2014). The effects of corporate governance mechanisms on earnings management of listed firms in Nigeria. *Accounting and Management Information Systems*, 13(1), 159-174.
- Vujicic, T. (2015). *Corporate social responsibility and stock returns: Examining US stock performance*. Retrieved June 16, 2016, from <http://ssrn.com/abstract=2595769>
- Wagner, M. (2010). The role of corporate sustainability performance for economic performance: A firm-level analysis of moderation effects. *Ecological Economics*, 69, 1553–1560.
- Yu, M., & Zhao, R. (2015). Sustainability and firm valuation: an international investigation. *International Journal of Accounting and Information Management*, 23(3), 289 - 307.