LEVERAGE AND SOCIAL SUSTAINABILITY REPORTING ON LISTED OIL AND GAS FIRMS IN NIGERIA

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Abstract
The study determines the effect of Leverage on Social Sustainability Reporting of listed Oil and Gas firms in Nigeria. Based on the nature of the study, Ex-Post facto research design and content analysis method were adopted. Seven (7) listed Oil and Gas firms in Nigeria constituted the sample size of this study for the years 2010 and 2020. Secondary data were extracted from the annual reports and accounts of the sampled firms and extracts from the annual reports were analyzed using descriptive statistics and inferential statistics such as Pearson Correlation, Panel Least Square (PLS) regression analysis and Hausman test through E-Views 10.0 statistical software. Findings from the empirical analysis showed that Leverage had significant effect on Social Sustainability Reporting in Nigeria. Given the significant relationships between leverage and sustainability reporting, firms should intensify efforts to understand the role of sound environmental practices and disclosures in reducing the cost of debt and enhancing financial performance

Keywords: Leverage, Social Sustainability Reporting and Firm size
Introduction
Over time, the responsibility and obligations of organizations have been economic performance from the beginning, in order to assure the continuation of the organization's activities, a commitment to maximize profits for shareholder groups has been required (Balabanis, 1998). However, focusing solely on financial performance without regard for environmental implications has become a subject of global concern for many stakeholder groups, especially in light of the rising number of incidents of corporate failure due to non-financial issues disclosed in recent decades (QI-Oquili & Kouhy, 2006). In terms of economic development, sustainable development aims to raise living standards in modern countries without focusing solely on economic growth (Labrini, 2021). The major goal of sustainable development methods is to improve the quality of life for current generations so that the environment and resources are not exhausted at the expense of future generations, and social cohesiveness is not jeopardized by social inequity and political instability. In a nutshell, "triple bottom line development: economic–social–environmental" represents sustainable development (Carroll, 1979).

CSR has fully integrated worldwide company strategy via sustainability reporting, according to Labrini (2021), generating worries about the performance consequences of corporate sustainability in terms of both short-term profit and various long-term benefits. The performance potential of incorporating sustainability programs into bank business models, in particular, has piqued the global business community's interest. This new and different style of banking, dubbed "Sustainable Banking," claims to foster adherence to sustainable development principles while delivering value to the entire value chain of transactions and earning funds from investors.

As a result of the corporate response to these global concerns, the concept of Environmental Disclosure emerged as a western phenomenon in the business literature (Macarulla & Talalweh, 2012). For many governments, especially in the industrialized world, environmental disclosure or reporting for not just their financial actions, but also the non-financial effects of their activities has become a difficulty (Macarulla & Talalweh, 2012). Particularly, Environmental Disclosure practices in these countries such as Europe, USA and Canada gained increasing importance in the literature of accounting, as numerous western studies confirmed that the profit standard is no longer the only approach used to evaluate corporate performance (Bhattacharyya, 2015). Empirical studies also show mixed results have in terms of statistical relationship between leverage and sustainability reporting. John-Akamelu, Iyidiobi and Ezejiofor (2017) showed that financial leverage has no significant effect on Earning Per Shares of food production firms in Nigeria. Batista and Francisco (2018); Grigorescu, Maer-Matei, Mocanu and Zamfir (2020); Puni and Anlesinya (2020) found a positive but insignificant relationship between leverage and sustainability reporting. On the other hand, Udeh and Ezejiofor (2018) reported that sustainability cost accounting has significantly affected return on assets of Nigerian telecommunication firms, while, Okeke, Ezejiofor and Okoye (2021) found that leverage has a significant negative effect on cash ratio of conglomerates firm Nigeria. The study therefore determines the effect of Leverage on Social Sustainability Reporting of listed Oil and Gas firms in Nigeria.

Review of related literature
Sustainability Reporting – GRI Standards
Sustainability is defined as providing today's requirements without jeopardizing future generations' ability to meet their own (Pobbi, Anaman & Quarm, 2020). The GRI Standards are
the gold standard for publicly reporting on a variety of economic, environmental, and social consequences. The Standards-based sustainability reporting gives information on an organization's positive and negative contributions to sustainable development (United Nations Environment Programme, 2020). Sustainability reporting is more than just generating reports from data; it's a mechanism for an organization to internalize and improve its commitment to sustainable development in a way that can be proved to both internal and external stakeholders (Bristow, 2014). Corporate Sustainability Reporting can help companies and organizations measure their performance in all dimensions of sustainable development, set goals, and support the transition to a low-carbon, resource-efficient, and inclusive green economy. It can also help companies and organizations measure their performance in all dimensions of sustainable development, set goals, and support the transition to a low-carbon, resource-efficient, and inclusive green economy (Global Reporting Initiative, 2015). Organizations can use sustainability reporting to consider the effects of a wide range of sustainability challenges, allowing them to be more open about the risks and opportunities they face (KPMG, 2015).

A sustainability report is a document produced by a firm or organization that details the economic, environmental, and social consequences of its daily operations. A sustainability report includes outlines the organization's values and governance approach, as well as demonstrating the organization's progress (Sulkowski, 2016). Sustainability reporting can help organizations to measure, understand and communicate their economic, environmental, and social governance performance, and then set goals, and manage change more effectively. A sustainability report is the key platform for communicating sustainability performance and impacts - whether positive or negative (Schaltegger, Bennett & Burritt, 2018). Sustainability reporting can be considered as synonymous with other terms for non-financial reporting; triple bottom line reporting, corporate social responsibility (CSR) reporting, and more. It is also an intrinsic element of integrated reporting; a more recent development that combines the analysis of financial and non-financial performance (Abdulsam, Abdulrahaman, Garba, Mohammed & Abubakar, 2020). The most important tool for conveying sustainability performance and implications is sustainability reporting. In its most basic form, a sustainability report is a report on an organization's environmental and social performance that is designed to be as relevant to managers, executives, analysts, shareholders, and stakeholders as feasible. A uniform standard is a valuable tool that permits reports to be rapidly examined, fairly rated, and easily compared. The Global Reporting Initiative (GRI) Sustainability Reporting Framework has become the most generally adopted framework as businesses throughout the world embrace sustainability reporting. Non-financial reporting concepts such as triple bottom line reporting and corporate social responsibility (CSR) reporting are interchangeable (Zhuang, Chang & Lee, 2018; Srinidhi, 2019; Samuel, Kit & Srinidhi, 2019).

It is critical to establish and retain trust in businesses and governments in order to achieve a sustainable economy and world. Businesses and governments make decisions every day that have immediate consequences for their stakeholders, such as financial institutions, labor groups, civil society, and citizens, as well as the level of trust they have with them. These judgments are rarely made only on the basis of financial data. They are based on a risk and opportunity evaluation based on data on a wide range of current and future challenges (Tutun & Som, 2018; Nwaiwu & Oluka, 2018). The value of the sustainability reporting process is that it requires that businesses think about their influence on these issues and allows them to be upfront about the risks and opportunities they face (Braam & Peeters, 2018; Manning, Braam, 2018). Stakeholders
also play a crucial role in identifying these risks and opportunities for organizations, particularly those that are non-financial. This increased transparency leads to better decision making, which helps build and maintain trust in businesses and governments (Osazuwa, Che-Ahmad & Che-Adam, 2017; Loza-Adau, 2020).

Leverage

Leverage is a type of investment strategy that involves borrowing money. It is the use of a variety of financial instruments or borrowed funds to boost an investment's prospective return (Adam, 2020). The amount of debt a company utilizes to finance assets is often referred to as leverage. When a company invests to develop its asset base and create returns on risk capital, it uses borrowed capital as a funding source (James, 2020). The use of debt (borrowed capital) to finance a venture or undertaking is known as leverage. As a result, the project's potential returns are multiplied. Simultaneously, leverage increases the potential downside risk if the venture does not pan out. When referring to a business, the term "property" is used. It denotes that the item has a higher debt to equity ratio (Hayes, 2020). Both investors and businesses employ the idea of leverage. Investors utilize leverage to boost the amount of money they can make on a given investment. They use a variety of products to leverage their investments, including options, futures, and margin accounts. Leverage can be used to finance a company's assets. To put it another way, instead of issuing shares to raise capital, businesses can use debt financing to invest in their operations in order to boost shareholder value (Bartram, Brown, & Waller, 2013). Investors that are hesitant to use leverage directly can use leverage indirectly in a variety of ways. They can invest in companies that finance or invest using leverage in the normal course of business.

Financial leverage is the use of borrowed money (debt) to finance the purchase of assets with the expectation that the income or capital gain from the new asset will exceed the cost of borrowing (Collins, 2020). In most cases, the provider of the debt will put a limit on how much risk it is ready to take and indicate a limit on the extent of the leverage it will allow. In the case of asset-backed lending, the financial provider uses the assets as collateral until the borrower repays the loan. In the case of a cash flow loan, the general creditworthiness of the company is used to back the loan (Colgate. 2020).

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\text{Leverage} = \frac{\text{Total Liabilities}}{\text{Total Assets}}
\]

The advancement of financial markets as a source of capital has complicated the challenge of generating cash for executive bodies whose ultimate purpose is to improve corporate performance (Sutopo, Kot, Adiati & Ardila, 2018). Debt and equity have evolved into their own terms and meanings, with debentures, bonds, loans, running finances, ordinary shares, preferred shares, and retained earnings being the further divisions formed for these kinds of capital (Hawrysz & Foltys, 2016). Guse, Almăsan, Circa, & Dumitru (2016) anticipate finance managers to identify the best choice for a particular resource to be funded and strike the proper balance to cut costs while increasing earnings for shareholders. External sources of finance, like as debt, are critical in accelerating the growth of a company's asset since they allow the company to utilize its existing funds to meet its growth goals. It also enables rapid expansion, immediate cash inflows, risk reduction, and scale efficiencies. As a result, a company's expansion is critical.
to boosting earnings, reducing risk, and achieving stability (Manes-Rossi, Tiron-Tudor, Nicol, Zanellato, 2018).

The importance of leverage in a company's capital structure is that its efficient utilization lowers the company's weighted average cost of capital (WACC), cutting the cost of capital, and thus increasing the firm's net economic returns (Thijssens, Bollen & Hassink, 2016). Sustainability reporting would be both a cheaper solution to attract capital sources and a tool to achieve corporate sustainability goals. Through sustainability reporting, a company may be able to persuade potential investors that it is a lower risk investment than other companies (Zamfir, Mocanu & Grigorescu, 2017). An increasing proportion of investors say they prefer to invest in transparent companies because they have more trust in the managers and stakeholders, better forecasting, and less information asymmetry (Jiang & Fu, 2019). In several industrial branches, the voluntary disclosure of sustainability data, including environmental implications, has provided investors with more information than government-backed transparency efforts, which is favorably connected with operating cash flows and returns on assets (Garcia, Cintra, de Torres & Lima, 2016). Overall, corporate sustainability reporting has become a driver of change, but CSR has also become a fundamental criterion for achieving competitive advantages and strategic management, with the mission of devising and implementing sustainable strategies to minimize obvious and potential vulnerabilities (Jianu, Turlea, Gusatu, 2016).

**Empirical Studies**

Okoye and Ezejiofor (2013) evaluated the impact of sustainability environmental accounting on company performance and economic growth. The Pearson Product Movement Correlation Coefficient was used to examine and test two hypotheses in this article, and it was discovered that sustainable environmental accounting has a considerable impact on business productivity and growth. Okoye, Oraka, and Ezejiofor (2013) investigated whether social sustainability reporting has an impact on internal and external perceptions of corporate organizations, as well as the amount to which external pressure has influenced the required social sustainability reporting in Nigeria. The survey research approach was used, and a questionnaire was given to a random sample of 80 employees, customers, and investors in manufacturing companies in Onitsha, Anambra state. The study discovered that social sustainability reporting has an effect on changes in internal and external perceptions of corporate organizations, and that pressures from external factors have contributed to social sustainability reporting of corporate organizations, using a five-point likert scale analysis and the z-test statistical tool to test the two hypotheses. The impact of cost management on corporate operating performance in Nigerian manufacturing enterprises was investigated by Ezejiofor, Nwakoby, and Okoye (2015). The study looked into the relationship between cost management, operating profit, and earnings per share in Nigerian corporations. The assumptions were tested using Simple Regression Analysis and SPSS version 20.0. In Nigerian corporate enterprises, the study discovered a substantial relationship between cost management, operating profit, and earnings per share. The effect of sustainability accounting measures on the performance of corporate organizations in Nigeria was investigated by Ezejiofor, John-Akamelu, and Ben Eucharia (2016). Time series data and an ex post facto study design were used. The study's data came from the company's annual reports and accounts in Nigeria. With the help of SPSS Version 20.0, regression analysis was utilized to examine the hypotheses. The study discovered that environmental costs had no positive impact on corporate revenue in Nigeria, but they do have a good impact on profit generation. The influence of financial leverage on the financial performance of food production enterprises in Nigeria was
investigated by John-Akamelu, Iyidiobi, and Ezejiofor (2017). The study used an ex post facto research design, with data gathered from annual reports and accounts of Nigerian food producing enterprises from 2009 to 2014. With the use of Statistical Package for Social Sciences (SPSS) version 2.0, a paired sample t-test analysis was used to examine the three hypotheses. Financial leverage has no substantial effect on Earnings Per Share of food producing enterprises in Nigeria, according to the findings. Xue (2017) compared the influence of company-specific variables on the level of CSR information released in publicly traded companies in the United Kingdom (UK) and Malaysia. Sampled reports from the FTSE 100 Index were subjected to content analysis. The relationships between the factors and total quantity of CSR disclosure (TQCSR) were further gauged using Spearman's correlation coefficients and multiple linear regressions (MLR) analyses, as well as the predictive determinants on sustainability reporting. For UK corporations, the Spearman's correlation revealed a negative relationship between leverage and TQCSR. Multiple linear regression studies revealed that in the UK model, firm size was a key factor of sustainability reporting, whereas in the Malaysian model, directors' experiences were the most important determinant. The importance of board of directors' CSR-relevant experience in determining the degree of CSR disclosures in publicly traded companies is highlighted in this first direct cross-market sustainability reporting study. The impact of sustainability cost accounting on the financial performance of Nigerian telecommunication companies was studied by Udeh and Ezejiofor (2018). Time series data and an ex post fact study design were used. With the help of SPSS Version 20.0, the hypotheses were investigated using regression analysis. The findings reveal that sustainability cost accounting has had a major impact on Nigerian telecommunications operators' return on assets. Given the industry dynamics and economic circumstances of the country, Ahmed, Awais, and Muhammad (2018) explored the optimal level of capital structure that enterprises might adopt to improve their financial performance. Using Hausman’s specification test, annual data for the period 2005-2014 of Karachi Stock Exchange (KSE) 100 index listed securities was collected to analyze the impact of financial leverage on the firms’ performance. Return on assets, return on Equity, and Tobin’s Q are the proxies of financial performance analyzed against financial leverage for the KSE 100 index listed firms. The finding of the study indicated that capital structure, leverage, interest cover and sales growth as most significant variables impacting firms’ profitability. Using the Global Reporting Initiative (GRI) methodology, Orazalin and Mahmood (2019) evaluated the factors of sustainability performance disclosures reported by publicly traded companies in Kazakhstan. Stand-alone sustainability reporting (SR), reporting language, leverage, cash flow capacity, profitability, size, age, and auditor type were chosen from among the various possible determinants to explore their effects on the quality and scope of sustainability information. The study analyzed data from publicly traded companies at the Kazakhstani Stock Exchange for the years 2013-2015. The findings revealed that criteria such as stand-alone reporting, reporting language, company profitability, firm size, and auditor type had a significant impact on the scope, nature, and quality of Kazakhstani enterprises' sustainability reporting practices. Zaher (2020) looked into the impact of financial leverage, business size, and asset structure on firm value. For a sample of 13 enterprises from the mining and extraction industry sector listed on the Amman stock exchange from 2010 to 2018, the researcher employed the analytical technique approach. To ensure data stability and no association between variables, the model of simple linear regression was employed to test the study's hypotheses using both programs (E-views, STATA), as well as both programs of unit root test and variance inflation factor. The study revealed that financial leverage has no impact on company value and that the link between
financial leverage and Tobin's q scale is negative. With information from a sample of selected companies quoted on the Nigerian Stock Exchange, Umar and Abdul-Quudas (2020) investigated the influence of financial leverage on firm value. Using secondary data from the financial statements of the selected organizations from 2014 to 2018, the study used a panel data analysis. The simple sampling strategy was used to pick the sample of 18 firms to be researched. The Pooled Ordinary Least Squares method was used to determine the degree of causation (POL). Financial leverage has a considerably negative effect on firm value, according to the regression results, whereas there is no significant linear link between leverage and firm value, according to the pairwise correlation data. Abdulsalam and Babangida (2020) looked into the impact of sales and firm size on oil and gas company sustainability reporting in Nigeria. The study's participants were 24 oil and gas companies active in the Nigerian oil and gas industry's upstream, midstream, and downstream. Six companies were chosen to constitute the study's sample size across a fifteen-year period, from 2004 to 2018. Data from the sample companies' annual accounts and stand-alone reports were analyzed using panel regression techniques. The findings revealed that company characteristics proxied by sales growth and leverage had a negative significant effect on sustainability reporting and profitability of oil companies, whereas firm size had a positive significant effect. The impact of leverage on the cash ratio of Nigerian conglomerates was investigated by Okeke, Ezejiofor, and Okoye (2021). Data were taken from the sampled firms' annual reports and accounts and analyzed using Pearson correlation and Ordinary Least Square (OLS) regression analysis using E-Views 9.0 statistical software. At a 5% level of significance, the study discovered that leverage has a considerable negative impact on the cash ratio of Nigerian corporations. The relationship between leverage and the timeliness of financial disclosures in Nigerian quoted businesses was investigated by Aigienohuwa and Ezejiofor (2021). The study employed an ex post facto research design. The study's population comprises of 145 Nigerian publicly traded enterprises. The Taro Yamane method was used to calculate the sample size. Data was gathered through a content analysis of annual reports and accounts of ten publicly traded Nigerian companies from 2010 to 2019. With the help of the e-view 9.0 program, the panel data regression technique was utilized to estimate the association between the variables. At a 5% level of significance, the study found that firm leverage has no meaningful link with financial report timeliness in Nigerian quoted businesses. Adebayo and Ezejiofor (2021) ascertained the effect of voluntary environmental disclosure on the corporate performance of quoted consumer goods manufacturing firms in Nigeria. Ex post facto research design was used. The population of the study was drawn from selected consumer good manufacturing firms quoted on the floor of the Nigerian Stock Exchange. The study was based on secondary sources of data, collected from annual financial reports. The study found that voluntary disclosure is positively related to the current ratio and a quick ratio of quoted manufacturing companies in Nigeria.

Methodology

This study achieved its objectives by employing Ex-Post Facto research design. This is because ex-post facto research design involves repeated observations of the same units (companies in this study) over a period of time (2010 to 2020).

Population and Sample Size

The population of this study consists of all the twenty (20) listed Oil and Gas firms in Nigeria and South Africa. This entails 12 listed oil and gas firms in Nigeria.
Seven (7) listed Oil and Gas companies were selected as the sample size of this study with the utilization of purposive sampling method. Data were gathered from the published financial statements of seven (7) listed most capitalized Oil and Gas companies in Nigeria: Conoil Plc; Eterna Plc; MRS Oil Nigeria Plc; Oando Plc; Rak Unity Petroleum Company Plc; Seplat Petroleum Development Company Plc; Total Nigeria Plc for eleven (11) years period spanning from 2010-2020, using Purposive sampling method. The sample of the study also consists of all companies that meet the following conditions: the shares of the company shall be traded in the financial market during the study period; the company has all the necessary data to calculate the variables of the study. The reason for the choice of this time frame is availability of published annual report and accounts of the selected organizations and to have a fairly, reasonably, reliably and up-to-date available financial data.

Sources of Data
Primarily, this study would make use of secondary data. The data would be sourced from publications of the Nigerian stock exchange (NSE) Fact Books for various years, Annual Report and Accounts of the respective sampled listed Oil and Gas companies, particularly the Comprehensive Income Statement and Statement of Financial Positions of these companies as well as their respective notes to the accounts and stand-alone sustainability report from 2010-2020.

Method of Data Collection
Social sustainability reporting was evaluated using 30 indicators based on GRI guideline. GRI Sustainability Reporting Guidelines offer companies some principles to ensure the quality of information in the sustainability report: Balance; Comparability; Accuracy; Timeliness; Clarity; Reliability. The disclosure indicators were measured by assigning a value to each of them, a value that is from zero (0) to five (5) which reflects the quantity as well as quality of information. ‘0’ is given to imply the absence of the disclosure. An indicator was assigned a value of 1, if there is only qualitative data; 2, if there is quantitative data (accuracy); 3, if there are quantitative data and also time series (comparability and timeliness); 4, if there are quantitative data, time series and targets(balance and clarity); 5, if there are quantitative data.

Model Specification
The Panel data equation can be depicted as follows:

$$y_{it} = \alpha_i + \beta_{ij}x_{it} + \epsilon_{it}$$

$y_{it}$: vector of dependent variable, such that $(y_{it}) = (SSR)$

$x_{it}$: vector of explanatory variables, such that $(x_{it}) = (STAR, SUSCOM, OWNS, ROE, LEV, CTR, FSZ)$

$i$ = company

$t$ = time

The vector of dependent variable $(y_{it})$ is sustainability reporting indicator to be determined, while $(x_{it})$ is vector of the explanatory variables, that is, factors that can influence sustainability reporting. The parameters $(\beta_{ij})$ are the various coefficients of the explanatory variables that were obtained when the model was fitted into the data. The constant term $(\alpha_i)$ represents the intercept of the equations while $(\epsilon_{it})$ is the error term that captures variables not included and expected to be identically distributed with zero mean and constant variance.
This study adapted the model of Grigorescu, Maer-Matei, Mocanu and Zamfir (2020):

$$SRI_{it} = \theta_i + \lambda_1BODC_{it} + \lambda_2LEV_{it} + \lambda_3FSE_{it} + \lambda_4PROF_{it} + \rho_{it}$$

Where:
- $\theta$: constant
- $\lambda$: coefficient variable
- $\rho$: error term
- SRI = Sustainability Reporting Indicator
- BODC: Board Committee on Sustainability,
- Leverage = LEV
- FSE = Frequency of Stakeholder Engagement
- Profitability = PROF

Thus, the resultant linear regression models of this study are:

$$SSR_{it} = \beta_0 + \beta_1LEV_{it} + \beta_2CTR_{it} + \beta_3FSZ_{it} + \mu_{it}$$

Where:
- $SSR_{it}$ = Social Sustainability Reporting of firm $i$ in period $t$
- $LEV_{it}$ = Leverage of firm $i$ in period $t$
- $CTR_{it}$ = Capital Turnover Ratio of firm $i$ in period $t$
- $FSZ_{it}$ = Firm Size of firm $i$ in period $t$
- $\mu_{it}$ = component of unobserved error term of firm $i$ in period $t$
- $\beta_0$ = constant term
- $\beta_1$, $\beta_2$ and $\beta_3$ = are slopes to be estimated of firm $i$ in period $t$.
- $i$ = firm identifier (14 firms)
- $t$ = time variable (2010 to 2020).

**Method of Data Analysis**

This current study is based on panel data. The study combined data of sampled Oil and Gas companies’ cross-section for a period of time series, where the data were composed of a set of indicators for 7 listed Oil and Gas companies in Nigeria, and eleven (11) year period from 2010 to 2020. Panel least square (PLS) regression analysis: was used to predict the effect of the independent variable on the dependent variable.

**Decision Rule**

Accept Null hypothesis ($H_0$) if the P-value of the test is greater than 0.05, otherwise reject, and accept the alternate hypothesis ($H_1$).

**Data Analysis and Results**

$H_0$: Leverage has no significant effect on Social Sustainability Reporting of listed Oil and Gas firms in Nigeria.
Table 1: Panel Least Square Regression Analysis on effect of Leverage on Social Sustainability Reporting

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.201519</td>
<td>0.479458</td>
<td>0.420305</td>
<td>0.6750</td>
</tr>
<tr>
<td>LEV</td>
<td>0.196530</td>
<td>0.033759</td>
<td>5.821485</td>
<td>0.0000</td>
</tr>
<tr>
<td>CTR</td>
<td>0.295451</td>
<td>0.121859</td>
<td>2.424529</td>
<td>0.0169</td>
</tr>
<tr>
<td>FSZ</td>
<td>-0.159465</td>
<td>0.041761</td>
<td>-3.818536</td>
<td>0.0002</td>
</tr>
</tbody>
</table>

R-squared          | 0.305078    | Mean dependent var | 0.360627  |
Adjusted R-squared | 0.287259    | S.D. dependent var  | 0.252160  |
S.E. of regression | 0.212884    | Akaike info criterion | -0.223642 |
Sum squared resid  | 5.302381    | Schwarz criterion   | -0.131219 |
Log likelihood     | 17.53033    | Hannan-Quinn criter. | -0.186105 |
F-statistic        | 17.12140    | Durbin-Watson stat  | 1.835782  |
Prob(F-statistic)  | 0.000000    |                     |           |

Table 1 regression model analysis for Nigeria shows that 28.7% variations in Social Sustainability Reporting (SSR) practices in Nigeria were explained by the independent variables LEV, CTR and FSZ (adjusted R-square was 0.287259). More so, table 1 shows that LEV made a strong and statistically significant predictive contribution in explaining Social Sustainability Reporting practices in Nigeria t-statistics 5.821485, p-value 0.0000 for Nigeria. Despite these, the predictive contributions of Leverage (LEV) of sampled Oil and Gas firms in Nigeria was noted to have followed positive and negative predictive trend accordingly.

On the other hand, Firm Size (FSZ) made a statistically significant but negative contribution in LEV’s explanation of SSR practices in Nigeria (p-value 0.0002 is less than 0.05 and t-statistics - 3.818536).

Capital Turnover Ratio (CTR) contributions to LEV’s explanation of Social Sustainability Reporting (SSR) in Nigeria peaked at t-statistics 2.424529 and p-value 0.0169 thereby indicating a state of strong, positive and statistically significant contributions.

Looking at the Durbin Watson for Nigeria as in Table 1 which lay great emphasis on the auto correlation among the study variables, it was discovered that the values of 1.835782 which is less than 2, provide evidence of no auto-correlation among the variables in the country.

**Decision**

Accept null hypothesis if p-value is greater than 0.05, otherwise reject and accept the alternate hypothesis. Since the Probability values (p-value) for Nigeria which is the same at 0.000000, is statistically significant and less than 0.05 at 5% level of significance, the alternate hypothesis is accepted and this means that Leverage has significant effect on Social Sustainability Reporting of listed Oil and Gas firms in Nigeria.
Table 2: Hausman Test Comparing FEM and REM Regression Result on LEV and SSR

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>22.423019</td>
<td>3</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

**Decision Rule**

The Fixed Effect Model (FEM) is preferred over the Random Effect Model (REM) if the P-value of the test is less than the conventional 5% level of significance, hence $H_1$ is accepted. On the other hand, the Random Effect Model (REM) is preferred over the Fixed Effect Model (REM) if the P-value of the test is greater than the conventional 5% level of significance, hence $H_0$ is accepted.

**Conclusion**

The study determines the effect of Leverage on Social Sustainability Reporting of listed Oil and Gas firms in Nigeria. Based on the nature of the study, *Ex-Post facto* research design and content analysis method were adopted. Based on the analysis of the data collected, the study concluded that Leverage has significant effect on Social Sustainability Reporting of listed Oil and Gas firms in Nigeria. Given the large yet unfavorable links between leverage and sustainability reporting, companies should focus their efforts on gaining a better understanding of the significance of sound environmental practices and disclosures in lowering debt costs and improving financial performance.
References


