| RESEARCH ARTICLE |

Financing Options And Firms Performance In Oil And Gas Sector In Nigeria
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| ABSTRACT |
The study examined the impact of leveraging on different financing options on oil and gas firms’ performance in Nigeria from 2015 to 2021. The ordinary least square regression method was used to analyse the data collected for the study. The result revealed that Long term has a positive but insignificant impact on firm profitability, equity capital has a positive but insignificant impact on firm profitability, debt to equity ratio has a negative and insignificant impact on firm profitability, firm size has a positive but insignificant impact on firm profitability, and total asset has a negative and significant impact on firm profitability. It was therefore recommended among others that firms should implement risk mitigation strategies, such as interest rate hedging or debt restructuring, to manage the impact of the debt to equity ratio on profitability. Monitor debt levels in relation to market conditions.

| KEYWORDS |
Financial strategy, Financing options, firms’ performance, Nigerian oil and gas sector

Introduction
Financing options concerns how companies raise and deploy their funds and it is one of the major heart of corporate strategy and company will fail to achieve its objectives with coordination of other strategies without financial strategy. Strategy is a conclusive plan of action that determines the major orientations of the organizations and gives guidelines for allocation of resources in the way of achieving long term goals (Rezaeeyan, 2005). Strategy is the pattern of decisions that is made in the organization and shapes the activities and results, good strategies are competitive tool and inappropriate strategies are considered as the main weaknesses of an organization (Arabshahi, 2010).

Financial strategy is a course of action including the specification of resources required to achieving a specific objective (CIMA, 2013). An organization has to identify its objectives. For most profit making organizations, the main objective is to maximize shareholder wealth (CIMA, 2013). The world today is full of challenges and uncertainties. This is also true in organizations and corporations. Organizations and companies are located in such a challenging environment and for passing this challenges and uncertainty requires planning and special measures with complete understanding (Shahmansuri & Shahraji, 2013). Planning involves formulating a strategy, evaluating the options and then selecting the appropriate ones to meet organisational objectives.
Despite an industry’s immense appetite for capital, compared to other capital intensive industries, it has been relatively conservative when it comes to financial restructuring (Brogran, 2014). Recently, independent organisations have faced greater challenges than their larger peers in attracting financing on reasonable terms. Lenders are looking for companies led by a strong management team with a combination of a good reputation in the industry, quality projects or assets, financial track record and the ability to deliver on promises.

However, the oil and gas has been experiencing a period of major investment with upstream spending topping 700 billion US dollars in 2013. This cannot be far-fetched as the oil and gas has been a driver of growth. More creative financing techniques and new sources of finance, in addition to traditional sources of capital, will help to ensure that sufficient and efficient funding is available to finance projects in the future. In response to heightened political and economic instability, companies have begun to diversify their sources of funding. This has involved a shift from bank-led financing to non-bank and capital markets-based funding. Thus, this study seeks to research on strategies of financing in oil and gas in Nigeria.

Over the years, Nigeria has proven to be among the most investment-friendly nations for IOC’s, not only because of the geological configuration of its terrain but for the relative security of investments in the industry. Also, the fiscal regime has been near stable while the industry has experienced growth in real terms over time. However, with concerns that current business strategies of some companies in the oil and gas sector may not be sufficiently sustainable given the changing nature of demand, emerging technologies and policy interventions which can and will impact on the sector (IIGCC, INCR & IGCC, 2012). Across all segments of the industry, opportunities exist to maximize financing so as to increase both its availability and reduce its cost. In many instances these opportunities are supported by an appropriately priced supply of finance via existing mechanisms and suppliers. In other areas, there is potential to obtain material financing from newer sources but currently there are structural issues preventing this from happening. These usually relate to inability of potential finance providers being unable to lay off critical risks (Broghan, 2014).

Recently, IOC’s are coming under increasing pressure from shareholders to curtail capital expenditures and increase their cash returns. Thus, in a flatter price environment and with consistent capital project inflation, operating cash flows are unlikely to fully finance the level of earnings required to cover planned capital expenditure. Although many new projects are being formulated, most do not take off because of the difficulties of securing sufficient financing.

Project sponsors are being forced to design more flexible and innovative financing involving a range of partners from both the public and private sectors. Still, the commercial and political risks often discourage potential partners on this basis this work will address the
options of financing project in the oil industry. Thus, this study specifically seeks to provide answers to the following questions;

Do firms in Nigerian oil and gas industry adopt similar finance strategies?

i. Is the banking sector the largest platform for which firms in Nigeria oil and gas used in sourcing for funds?

ii. Is the equity market the most significant platform for which Nigerian oil firms used in their strategic financing?

iii. Is the bond market a significant platform for which Nigerian oil firms used in their financing strategies?

The objectives of the Study will be

i. To determine the similarity of finance strategies within the firms in Nigeria oil and gas.

ii. To ascertain whether the banking sector is the significant platform for which firms in Nigerian oil and gas used in sourcing for funds.

iii. To examine whether equity market has been a significant platform for which Nigerian oil firms used in their strategies of finance.

iv. To examine if the bond market has provided a significant support in Nigerian oil firms strategies of finance.

The research Hypothesis of the study will be

H1: There exist no significant similarities in the strategies of finance adopted by Nigerian oil firms.

H2: The banking industry is not a significant platform for which oil firms used in their strategies of finance.

H3: The equity market is not a significant platform as strategies of finance in Nigerian oil and gas firms.

H4: The bond market is not a significant platform for oil and gas firms’ strategies of finance.

The study examines the strategies of finance options and performance in Nigerian oil and gas firms. covering ten randomly selected oil and gas quoted on the Nigerian stock exchange. The period cover audited financial statements of such firms from 2017 to 2022. This work is divided into the following review of important concepts of strategies of finance and review of theoretical and empirical literatures, research methodology, data analysis and interpretation of results. conclusion and recommendations.

Literature Review

The Concept of Financing Options

Financing options or financial structure is the means by which an organization is financed. It is the mix of debt and equity capital maintained by a firm (Chinaemerem & Anthony, 2012).
It is referred to the firm’s financing through different sources like Equity (Common and Preferred Equity) and Debt (Short-term and Long-term). According to Mujahid and Akhtar (2014) financing options refers to as the organizations mix of debt and equity financing as they finance their funds for investment from two sources either to take loan from the bank called debt or issue their shares to general public called the equity financing. Saleem and Rafique (2013) defined financing options as various alternatives firms used in financing its assets. Financing options or capital structure (CS) refers to a mixture of a variety of long term sources of funds and equity shares including reserves and surpluses of an enterprise (Tharmila and Arulvel, 2013).

Lim (2012) refer financing options as a way firms generate money to finance its operations and how it assigns them in a manner it chooses to in its balance sheet. It represents the total capital of a firm in terms of debt and equity combination to finance firm’s operations (Mujahid and Akhtar, 2014). Firm’s financing options relies upon the size of composition of debt or equity that is then used by firms to be operational.

Types of Financing Options
Traditionally, two sources of financing options have been identified in the oil and gas industry in the finance of their investment which are in form of debt or equity capital that allows firms to increase firm value, which is traditionally considered an ultimate goal of any business (Davydov, 2014). Equity has been classified into Common and Preferred Equity and Debt classified into Short-term and Long-term. However, other modern financing techniques is the Structural Financing We shall in this section take a closer look at each of the financing options.

1. Equity Finance
Equity financing explains an investment of capital into a firm for a share of its business ownership. It is the sale of shares by firms so as to raise capital in financing their investment plans. Equity financing is the issuing of common stocks and preferred stocks by firms to the general public so as to raise funds for investment (Mujahid & Akhtar, 2014). Baker and Martin (2011) defined equity as any financing instruments or vehicle that is a residual claim on the firm, does not create a tax advantage from its payments, has an infinite life, does not have priority in bankruptcy, and provides management control to the owner. According to Ogilvie (2006), an equity represents a share of the entity’s assets and a share of any profits earned on those assets after other claims have been met. Equity is sometimes referred to as shares. Broadly there are two types of equity or shares namely, ordinary shares or preference shares.

Debt Financing
Debt financing is a key component in a firm’s choice of its financing options and is defined as any financing vehicle that is a contractual claim on the firm (and not a function of its operating performance), creates tax-deductible payments, has a fixed life, and has a priority claim on cash flows in both operating periods and in bankruptcy (Baker & Martin, 2011). Bonds are described as a variety of forms of long-term debt an entity may issue to finance its investment. Specifically, debt financing can be through bank borrowings, leasing or bond
issue. Leasing is acquiring a right to use an asset by a firm with a commitment to make fixed payments to the owner.

**Structured Financing**
Structured finance, according to Culp and Forrester (2010) is the process of raising capital or managing risk through the issuance of securities deliberately designed to satisfy specific needs of the issuer and/or the demands of target investors. It is the blend of securities and derivatives to project financing. The types of structured project finance include future-flow securitizations, prepay and volumetric production payment programs.

**Firm Performance**
Firm performance reflects the extent of goal achievement in the organization's workforce, capital, marketing, and fiscal matters (Marcoulides & Heck, 1993). Several objective and subjective measures have been used in the literature to determine the level of firms’ performance. Abu-Jarad, Yusof & Nikbin, (2010) noted that the most common measures of organizational performance are financial profitability and growth.

**Measures of Firm Performance**
Firm’s performance is usually determined or measured using financial indicators. Financial indicators measure how well companies do in terms of financial returns. Financial ratios help in analyzing and interpreting the oil and gas firms’ financial data and accounting information which gives an understanding on their performance. Some of the indicators include profitability ratios, liquidity ratios, and solvency ratios among others.

Profitability ratios assess the business’s ability to generate earnings compared to the expenses incurred (Talevski & Lacet de Lima, 2009). Profitability ratios for instance include earnings before tax (profit) margin or returns on equity (ROE). Return on Equity reveals how a firm management effectively and efficiently manages the shareholders’ funds in generating and maximizing profits. Liquidity ratios determine the company’s financial strength or its ability to pay off its short-term debt obligations. The higher the ratios are, the larger is the margin of safety that the company possesses to cover the short-term debts (Talevski & Lacet de Lima, 2009).

**Theoretical Review**
Theories that focus on determinants of firms’ financing options or capital structure and how it’s in turn affect performance have been developed and tested. Some of the theories include static trade off theory, agency costs theory and pecking order theory.
Static trade off theory states that the optimum financing options is chosen by minimizing weighted average cost of capital while at the same time taking into account the costs and benefits of financial leverage. And with the financing options or capital structure affecting firms’ performance and market value, management takes into account this relation when deciding about the type of financing and amount of financial leverage. Within the static trade-off theory diverse signs are expected for both directions of the causal relation depending on which effect prevails.
Empirical Review

Although, empirical studies relating firms financing options with performance in the oil and gas sector are scanty, studies that focus on effects of firms’ capital structure on its performance abounds. Chinaemerem & Anthony (2012) examines the impact of capital structure on financial performance of Nigerian firms using a sample of thirty non-financial firms listed on the Nigerian Stock Exchange during the seven-year period, 2004 – 2010. Panel data for the selected firms were generated and analyzed using ordinary least squares (OLS) as a method of estimation. The result shows that a firm’s capital structure surrogated by Debt Ratio has a significantly negative impact on the firm’s financial measures (Return on Asset, ROA, and Return on Equity, ROE).

Soumadi and Hayajneh (2011) investigate the effect of capital structure on the performance of the public Jordanian firms listed in Amman stock market. The study used multiple regression model represented by ordinary least squares (OLS) to examine the effect of capital structure on the performance by applying on 76 firms (53 industrial firms and 23 service corporation) for the period (2001-2006). The results of the study concluded that capital structure associated negatively and statistically with firm performance on the study sample generally. Gabrijelcic, Herman and Lenarcic (2013), studies the effects of different financing possibilities on performance of firms before and during the recent crisis, using a large panel of Slovenian companies for the period between 2001 and 2011. Thy found a significant negative effect of leverage on firm performance. The estimated negative effect is stronger in the pre-crisis period, when taking into account the reverse causality between financial leverage and firm performance. In addition, we find that firms that had some foreign debt financing performed better than their counterparts. At the same time, the presence of foreign debt amplifies the negative effect of total leverage on firm performance. Tharmila and Arulvel (2013) examine the relationship between capital structure and financial performance of the listed companies traded in Colombo stock exchange (CSE). The relationship between independent variable capital structure and dependent variable financial performance were tested by correlation analysis. They found out that there is a negative relationship between the capital structure and financial performance.

Research Design

Both time series and cross section data research design was adopted in the study because the data were collected at a different and across 12 oil firms in Nigeria.

Population and Sample Size

The population of the study is made up of the entire oil and gas firms in the Nigerian oil and gas industry. However, we shall draw a sample size of 12 companies from the population that covers their financing options and performance from 2017 to 2021.
Sources of Data
The data for the selected quoted companies was sourced from the fact-book of the Nigerian exchange Limited (NGX) and the annual reports of financial statements of the respective firms with the scope of the data from 2015 to 2021.

Data Analysis Technique
The study adopts the Ordinary Least Squares (OLS) econometric technique using balance panel data to estimate the empirical model.

Model Specification
We specify our model for the study thus;
\[ \text{Firm Size} = \alpha_0 + \alpha_1 \text{Total Equity}_{it} + \alpha_2 \text{Total Debt}_{it} + \epsilon_{it} \]
\[ \text{TLTA} = \alpha_0 + \alpha_1 \text{Total Equity}_{it} + \alpha_2 \text{Total Debt}_{it} + \epsilon_{it} \]
\[ \text{Total Assets} = \alpha_0 + \alpha_1 \text{Current Debt}_{it} + \alpha_2 \text{Long – Term Debt}_{it} + \alpha_3 \text{Total Equity}_{it} + \epsilon_{it} \]
\[ \text{Return on Equity} = \alpha_0 + \alpha_1 \text{Total Equity}_{it} + \alpha_2 \text{Total Debt}_{it} + \epsilon_{it} \]

DATA PRESENTATION AND ANALYSIS
The results from the regression estimation are presented and discussed here. Also the descriptive statistics are presented and analysed in this chapter. The data used the analysis cover the various financing options and indicators of bank performance.

Table 1: Descriptive Statistics for Financing Options and Bank Performance

<table>
<thead>
<tr>
<th></th>
<th>FS</th>
<th>ROE</th>
<th>TA</th>
<th>TLTA</th>
<th>TE</th>
<th>TD</th>
<th>CRD</th>
<th>LTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>9.819148</td>
<td>3.107873</td>
<td>3.25E+10</td>
<td>0.780162</td>
<td>8.13E+09</td>
<td>1.45E+10</td>
<td>8.61E+09</td>
<td>5.86E+09</td>
</tr>
<tr>
<td>Median</td>
<td>9.948027</td>
<td>0.122143</td>
<td>9.58E+09</td>
<td>0.557737</td>
<td>3.17E+09</td>
<td>2.69E+09</td>
<td>7.41E+08</td>
<td>5.62E+08</td>
</tr>
<tr>
<td>Maximum</td>
<td>1135664</td>
<td>141.6898</td>
<td>2.27E+11</td>
<td>12.19767</td>
<td>5.75E+10</td>
<td>1.05E+11</td>
<td>7.69E+10</td>
<td>5.39E+10</td>
</tr>
<tr>
<td>Minimum</td>
<td>7.966203</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-4.45E+09</td>
</tr>
<tr>
<td>S Std.</td>
<td>0.979196</td>
<td>18.42602</td>
<td>4.77E+10</td>
<td>1.706269</td>
<td>1.26E+10</td>
<td>1.22E+10</td>
<td>1.20E+10</td>
<td>2.821837</td>
</tr>
<tr>
<td>Dev.</td>
<td>0.291100</td>
<td>7.281303</td>
<td>2.02787</td>
<td>5.132376</td>
<td>2.675725</td>
<td>1.856083</td>
<td>2.242225</td>
<td>10.86408</td>
</tr>
<tr>
<td>Skewness</td>
<td>1.849363</td>
<td>55.16512</td>
<td>8.219651</td>
<td>35.30508</td>
<td>10.34404</td>
<td>6.435959</td>
<td>7.956430</td>
<td>111.6912</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>4.157306</td>
<td>7333.173</td>
<td>116.6346</td>
<td>2872.458</td>
<td>206.4321</td>
<td>63.96496</td>
<td>111.6912</td>
<td>234.2371</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>0.125099</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
</tr>
<tr>
<td>Probability</td>
<td>0.125099</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
</tr>
</tbody>
</table>
The descriptive statistic revealed that the data are normally distributed and moderately distributed around the mean with low mean values. Also the standard deviation values are relatively low showing minimum deviation from the mean. Below is the results and interpretation for the correlation matrix.

Table 2: Correlation Matrix for Dependent and the Independent Variables

<table>
<thead>
<tr>
<th></th>
<th>FS</th>
<th>ROE</th>
<th>TA</th>
<th>TLTA</th>
<th>TE</th>
<th>TD</th>
<th>CRD</th>
<th>LTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>FS</td>
<td>1.000000</td>
<td>-</td>
<td>0.749853</td>
<td>-</td>
<td>0.622414</td>
<td>0.624716</td>
<td>0.622414</td>
<td>0.542815</td>
</tr>
<tr>
<td>ROE</td>
<td>-0.106995</td>
<td>1.000000</td>
<td>-</td>
<td>0.091593</td>
<td>0.021585</td>
<td>0.101245</td>
<td>0.099339</td>
<td>0.083115</td>
</tr>
<tr>
<td>TA</td>
<td>0.749853</td>
<td>-</td>
<td>1.000000</td>
<td>-</td>
<td>0.749814</td>
<td>0.655458</td>
<td>0.381465</td>
<td>-</td>
</tr>
<tr>
<td>TLTA</td>
<td>-0.215096</td>
<td>-</td>
<td>0.136338</td>
<td>-</td>
<td>0.091593</td>
<td>0.136338</td>
<td>-</td>
<td>0.068806</td>
</tr>
<tr>
<td>TE</td>
<td>0.622414</td>
<td>-</td>
<td>0.749814</td>
<td>-</td>
<td>1.000000</td>
<td>0.678959</td>
<td>0.339796</td>
<td>-</td>
</tr>
<tr>
<td>TD</td>
<td>0.624716</td>
<td>-</td>
<td>0.655458</td>
<td>0.068806</td>
<td>0.678959</td>
<td>1.000000</td>
<td>0.868744</td>
<td>0.099339</td>
</tr>
<tr>
<td>CRD</td>
<td>0.542815</td>
<td>-</td>
<td>0.740677</td>
<td>-</td>
<td>0.842172</td>
<td>0.742679</td>
<td>0.313576</td>
<td>-</td>
</tr>
<tr>
<td>LTD</td>
<td>0.078375</td>
<td>-</td>
<td>0.033677</td>
<td>-</td>
<td>0.842172</td>
<td>0.742679</td>
<td>0.313576</td>
<td>0.033677</td>
</tr>
</tbody>
</table>

Source: Author’s computation 2023

The correlation matrix results as presented in Table 2 shows the signs of the relationships are negative for some variables and positive for some variables. ROE shows a weak relationship with the various sources of funds. Firm size shows a strong and positive relationship with the independent variables.

Table 3: Regression Results

<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>9.370928</td>
<td>0.212231</td>
<td>44.15436</td>
<td>0.0000</td>
</tr>
<tr>
<td>TE</td>
<td>3.15E-11</td>
<td>8.98E-12</td>
<td>3.510251</td>
<td>0.0009</td>
</tr>
<tr>
<td>TD</td>
<td>1.20E-11</td>
<td>4.87E-12</td>
<td>2.465078</td>
<td>0.0168</td>
</tr>
<tr>
<td>AR(1)</td>
<td>0.628194</td>
<td>0.105485</td>
<td>5.955295</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Source: Author’s computation 2023

The regression results show the significant impact of the independent variables on the dependent variable. Firm size (FS) has a significant effect on the dependent variable with a coefficient of 9.370928 and a t-statistic of 44.15436, indicating a strong positive relationship. Firm size is significant at a 5% level of significance.
The regression results revealed that TE and TD are statistically significant in determining the size of a firm. This show that most Nigerian firms in the oil and gas sector exhibit similarities in the financing options they use to finance their businesses. The t-statistic and the probability value reveal statistical significance. The coefficient of determination of 66.68% shows that on the average there is good fitness of the model. The Durbin Watson statistic revealed the absence of serial correlation explaining the significant similarities of financing options for financing Nigerian oil and gas firm and their impact on the firm performance.

### Table 4: Equity Financing Options

<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>0.823429</td>
<td>0.265598</td>
<td>3.100282</td>
<td>0.0030</td>
</tr>
<tr>
<td>TD</td>
<td>2.11E-11</td>
<td>1.30E-11</td>
<td>1.621543</td>
<td>0.1104</td>
</tr>
<tr>
<td>TE</td>
<td>-4.28E-11</td>
<td>2.37E-11</td>
<td>-1.809283</td>
<td>0.0757</td>
</tr>
</tbody>
</table>

Inverted AR Roots .63

**Source: Author’s computation 2023**
The regression results for financing options revealed that total equity is a significant source of fund for oil and gas firms in Nigeria. The t-statistic value of -1.8092 and a probability value of 0.0757 is statistically significant at 10% level of statistical significance. But the values for total debt appear not to be significant at the chosen level of significance.

The DW statistic revealed that there is no autocorrelation in the model. The F-statistic with a value of 1.7801 and a probability value of 0.1778 appears not to be significant in explaining the overall significance of the model. Equity is negatively signed in the relationship between the dependent variable and the independent variable. This implied that the more the funds provided by outside creditors the less the equity from owners of the firm and the more the increase in total asset of the firms. But total debt is positively signed in the relationship between dependent and independent variables implying that increase in debt leads to increase in total assets (total sources of funds from outside creditors).

**Table 5: Debt Financing Options**

<table>
<thead>
<tr>
<th>Dependent Variable: TA</th>
<th>Method: Least Squares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>Coefficient</td>
</tr>
<tr>
<td>C</td>
<td>8.49E+09</td>
</tr>
<tr>
<td>CRD</td>
<td>0.257595</td>
</tr>
<tr>
<td>LTD</td>
<td>2.095041</td>
</tr>
<tr>
<td>TE</td>
<td>1.104349</td>
</tr>
<tr>
<td>AR(1)</td>
<td>0.415285</td>
</tr>
</tbody>
</table>

R-squared            
Adjusted R-squared  
S.E. of regression   
Sum squared resid    
Log likelihood       
Watson stat          

| R-squared | 0.675111 |
| Adjusted R-squared | 0.651045 |
| S.E. of regression | 2.83E+10 |
| Sum squared resid | 4.32E+22 |
| Log likelihood | -1500.948 |
| Watson stat | 2.041626 |

Mean dependent var 3.19E+1 0
S.D. dependent var 4.79E+1 0
Akaike info 51.04909
Schwarz 51.22515
F-statistic 28.05267
Prob(F-statistic) 0.000000

| Inverted AR | .42 |

From the regression result in table 5, current debt with a t-value of 0.9096 and a probability value of 0.3671 is not statistically significant as a financing option. And since most of the
sources of funds from the banking sector are short-term in nature, it implied that the banking sector is not a significant financing option for the oil and gas firms. The t-value of 3.2298 with a probability value of 0.0021 (significant at 5% level of significant) for long-term debt revealed that long-term debt is a significant financing option in determining the total asset value of the oil and gas firms in Nigeria. Also TE is statistically significant at 10% level of significance with a t – value of 1.7821 and a probability value of 0.0803. A unit change in long term debt will lead to a proportionate change of 209.50% in the value of total assets of the firm. This implied that long term debt is a significant financing option for the oil and gas firm in Nigeria.

The R² value of 67.51% shows that the independent variables account for about 67.51% of the systematic variation in the dependent variable. The F-statistic show statistically significant relationships between the dependent and the independent variables. The DW statistic shows no serial correlation hence the reliability of the regression results.

Table 6: Financing Options and Firm Performance

<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>4.511436</td>
<td>2.938641</td>
<td>1.535212</td>
<td>0.1303</td>
</tr>
<tr>
<td>TE</td>
<td>-9.16E-11</td>
<td>2.62E-10</td>
<td>-0.349658</td>
<td>0.7279</td>
</tr>
<tr>
<td>TD</td>
<td>-4.56E-11</td>
<td>1.44E-10</td>
<td>-0.316552</td>
<td>0.7527</td>
</tr>
</tbody>
</table>

R-squared 0.011987, Adjusted R-squared -0.022680, S.E. of regression 18.63380, Sum squared resid 19791.45, Log likelihood -259.0961, Durbin-Watson stat 1.999437

Source: Author’s computation 2023

The regression results show that the financing option does not affect performance of firms in the oil and gas sector in Nigeria. The t – value of total equity and total debt of -0.3496 and -0.3165 and probability values of 0.7279 and 0.7527 are not statistically significant. The coefficient of determination and F-statistic performed poorly implying that other variable could better account for the performance of the firms in the oil and gas sector in Nigeria. Though there was no serial correlation in the model.
Discussion of Findings
Total equity has a positive and statistical significant relationship on firm size in the oil and gas sector in Nigeria, i.e. a unit increase in total equity will lead to 0.00003-unit increase in firm size. This result is in tandem with the result of Umar, Tanveer, Aslam and Salid (2012) There exist a positive and statistical relationship between total debt and firm size. A unit increase in total debt will lead to 0.0000012-unit increase in firm size. This is tandem with the result of the second model it shows a positive but insignificant relationship between total debt and leverage in oil and gas sector in Nigeria. A unit increase total debt will lead to 0.00000021-unit increase in leverage. This is tandem with the result of Umar, Tanveer, Aslam and Sajid (2012). On the other hand, total equity is inversely and significantly related to leverage. A unit increase in total equity will lead to -0.0000043 decrease in leverage in the oil and gas sector in Nigeria.

Long term debt and total equity has a positive and statistical significant relationship with total asset in the oil and gas sector while current debt is although positive but statistically insignificant at 5% conventional level. Both results are in tandem with the result of Tharmila and Aruvel (2013) and Chinaemerem and Anthony (2012). Lastly total equity and total debt are both inversely and insignificant related to return on equity. An increase in total equity and total debt will lead to a unit decrease in total equity and total debt. This finding support the findings of Fernando, Iudice, Altomonte, Blank, Felt, Meinen, Neugebauer and Seidschlag (2015) and Mujahid and Akthar (2014).

Conclusion
This research examines the impact of financing options on performance of firms in the Nigerian oil and gas industry. The results show that total debt and total equity significantly positively impact firm size. Meanwhile, total equity significantly negatively impacts total liabilities to total assets while total debt positively influences total liabilities to total assets. Total equity positively affects total assets while both total equity and total debt negatively influences return on equity. The result proves that increase in leverage negatively affects the performance of firms. Traditionally, debt and equity sources of financing options along with Structural Financing have been identified to be adopted in the oil and gas industry in the finance of their investment.

From the results of our empirical analysis the following recommendations are made:

i. Oil and gas firms should ensure the achievement of optimal structure of its financing options that maximize its objectives of firm expansion.
ii. With the banking sector not a significant source of finance and debt insignificant as a financing option, oil and gas firms should devise a mechanism/framework that encourages financing using retained earnings and leverage as its last options.
iii. We also recommend that structured financing options for oil and gas be engineered with a view to enhancing their performance and growth of the industry.
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