EFFECT OF FIRMS’ CHARACTERISTICS ON FINANCIAL PERFORMANCE OF OIL AND GAS COMPANIES IN NIGERIA

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ABSTRACT
The study appraised the effect of firms’ characteristics on the financial performance of firms in Nigeria using the oil and gas firms in Nigeria. Sales growth and firms’ leverage are the proxies for firms’ characteristics while Return on Assets was the measure for financial performance. The study adopted the ex-post facto research design. Data were sourced from the financial statement of firms studied. Multiple regressions were used for analysis. Results show that sales growth and leverage have significant a negative and insignificant effect on Return on Assets. The paper recommends that firms should strive to enhance firms’ sales growth at a level that will positively and significantly affect Return on Assets. Leverage level should be managed so that the charges do not erode the returns made over the periods

KEYWORDS: Firms’ Characteristics, Financial Performance, Sales Growth, Leverage, Return on Assets.
INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Firms can be distinguished from one another on the basis of different financial and non-financial characteristics including size, value, profitability, structure, leverage, liquidity etc. These characteristics are unique to specific companies and raise a perception in the mind of the users of that information regarding the performance and future of the company. According to Safdar et al., 2013, in the current era where all critical decisions of firm management quickly reach the markets as well as information users, an important issue regarding financial research is the impact of these characteristics on financial performance.

Growth is another characteristic of firm that is perceived to influences profitability (Yasuda, 2005). Sales and income growth can be expected to influence rate of return and market value measures in both simulated and actual industries. It is unclear if growth in one year will affect profitability and market value measures in a succeeding year in simulated and actual environments. Asset growth, which can be used as a proxy for plant and equipment expenditures, and research intensity, may also affect sales and income growth in a base year or succeeding year, indirectly affecting profitability and market value (Kugari, 2013).

Firm age (measured as the number of years a company is operating in the market since it was founded) is an important determinant of financial performance and stock returns (Kaguri, 2013). Past research shows that the probability of firm growth, firm failure, and the variability of firm growth decreases as firm’s age (Evans, 1987; Yasuda, 2005). According to the life cycle effect, younger companies are more dynamic and more volatile in their growth experience than older companies (Kogan, 2012). Maturity brings stability in growth as firms learn more precisely their market positioning, cost structures and efficiency levels and these influences stock prices.

Profitability of the firm is another dimension of the firm’s characteristics (Kaguri, 2013). EPS (Earning per share), which is a function of profitability usually have significant positive influence on market return as shown in many past researches. This indicates that the higher the firm’s EPS, the higher market adjusted return and abnormal return that can be resulted by firm’s stock, because a higher EPS means higher profit obtained from every dollar price earned by the firm. Investors/shareholders consider current earnings, future earnings, and earnings stability are important, thus they focus their analysis on firm’s profitability (Oloidi and Bolade, 2015). They concern financial condition which will affect firm’s ability to pay dividend and avoid bankruptcy.
1.2 STATEMENT OF PROBLEM

There are several elements that determine financial performance. Some are external (macroeconomic variables) and others are internal (within the firm). It is generally understandable that macroeconomic forces such gross domestic product, inflation rate, regulatory policies and the likes, affect financial performance to a great extent. There are many literatures to this effect, Hamdan and Yusnidah (2013). But to what extent do internal factors within the firm affect their performance? Though many literatures/researches abound that investigated the relationship of firm characteristics and performance (Panu, Peng and Dennis, 2007; Kogan, 2012; Safdar, Hazoor, Toheed and Ammara, 2013; Onufe and Oladutire, 2014) only few are obtainable that investigated firm characteristics and profitability. It is against this backdrop that this research investigation was conducted.

1.3 OBJECTIVES OF THE STUDY

The main objective of this study is to determine the effect of firm characteristics on financial performance of oil and gas firms in Nigeria. The specific objectives are:

(i) To determine the effect of sales growth on return on asset of oil and gas firms in Nigeria
(ii) To ascertain the effect of leverage on return on asset of oil and gas firms in Nigeria

1.4 RESEARCH QUESTIONS

The following questions guided this study:

(i) What is the effect of sales growth on return on asset of oil and gas firms in Nigeria?
(ii) How does leverage affect return on asset of oil and gas firms in Nigeria?

1.5 STATEMENT OF HYPOTHESES

1. Sales growth has no significant positive effect on return on asset of oil and gas firms in Nigeria
2. Leverage has no significant positive effect on return on asset of oil and gas firms in Nigeria.

REVIEW OF RELATED LITERATURE

2.1 CONCEPTUAL FRAMEWORK

2.1.1 OVERVIEW OF FIRM CHARACTERISTICS

Companies can be distinguished from one another on the basis of different financial and non-financial characteristics including firm size, value, profitability, structure etc. These characteristics are unique to specific companies and raise a perception in the mind of the users of that information. Below are some of these characteristics:

2.1.2 SALES GROWTH

Sales is activity related to selling or the amount of goods or services sold in a given time period. It is a concept or an idea which lays emphasis on the sale of goods and services and not the underlying need or want, and it does not really matter whether the products are actually needed by the
customer or not. The focus is on sales (profit) first and then on marketing. This is also called the selling concept where the sole aim is sales, and not whether the product is actually required, Putthiwananit (2011).

2.1.3 LEVERAGE

Firm leverage is the degree to which a company uses fixed-income securities, such as debt and preferred equity. With a high degree of financial leverage come high interest payments. The trade-off between agency costs of debt and equity (Jensen and Meckling, 1976); the limited liability effect of debt (Brander and Lewis, 1986); and the disciplining effect of debt (Grossman and Hart, 1983; Jensen, 1986) all suggest a positive effect of leverage on performance. Bolton and Scharfstein, 1990; Chevalier and Scharfstein, 1996; Dasgupta and Titman, 1998; suggest that leverage opens up opportunities for rivalry predation in concentrated product markets, thus conditioning the performance effect of leverage on the degree of competition in the life insurance industry.

2.1.4 FINANCIAL PERFORMANCE

According to the business dictionary financial performance involves measuring the results of a firm’s policies and operations in monetary terms. These results are reflected in the firm’s return on investment, return on assets and value added.

Stoner (2003) as cited in Turyahebya (2013), defines financial performance as the ability to operate efficiently, profitably, survive, grow and react to the environmental opportunities and threats. In agreement with this, Sollenberg and Anderson (1995) assert that, performance is measured by how efficient the enterprise is in use of resources in achieving its objectives. Hitt, et al (1996) believes that many firms' low performance is the result of poorly performing assets.

2.1.5 RETURN ON ASSETS (ROA) AS A MEASURE OF FINANCIAL PERFORMANCE

Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings. Calculated by dividing a company’s annual earnings by its total assets, ROA is displayed as a percentage, Haniffa and Huduib (2006).

2.2 THEORETICAL FRAMEWORK

We present two important growth theories to support this study, namely, Growth of the Fitter theory (Alchian, 1950) and Learning-By-Doing Theory (Penrose, 1959).

2.2.1 GROWTH OF THE FITTER THEORY

This is the anchor of this study, because it is only profitable firms that can survives in the market and add value to the stakeholders in the long run while unprofitable firms die off and exist the market.
Firm growth and profitability have drawn a great deal of attention in the literature. Growth of the fitter theory was propounded by Alchain (1950). According to his theory, fitness is depicted by the firm profit, and the profitable firms grow and survive in the market while the other firms exist due to poor performance (Kouser et al., 2012). Alchain (1950) theoretical study argued that fitter firms grow and survive, but less vigorous firms lose their market share and exist through the evolutionary selection mechanism. Thus, if profit rates reflect the degree of fitness, it is possible to predict that profitable firms will grow (Jang and Park, 2011). Delmar, Davidson and Gartner, 2003), suggests that more profitable firms may have higher potential to grow, since they have already shown a greater fit with the environment and may be able to fund future competitive actions with their own cash flow.

22.2 LEARNING-BY-DOING THEORY

This theory was propounded by Penrose in 1959, she states that firm growth is led an internal momentum generated by learning-by-doing. According to her, Managers functions that initially posed problems because of their relative unfamiliarity soon become reutilized. As managers gain experience, their administrative tasks require less attention and less energy. As a result, managerial resources are continually being released. This excess managerial talent can be channeled to value-creating growth projects. Firms are faced with strong incentives to grow, because while “the knowledge possessed by a firm’s personnel tends to increase automatically with experience, there is a challenge to take full advantage of this valuable firm-specific knowledge.

2.3 EMPIRICAL REVIEW

2.3.1 EFFECT OF FIRMS SALES GROWTH ON FINANCIAL PERFORMANCE

Lee (2009) in his study to investigate effect of size of firm performance dubbed “does size matter in firm performance: evidence form US public firms” found firm size to be a key determinant in explaining profitability of 7,158 US publicly held companies in US stock exchanges using data of over 20 years period between 1987 and 2006. The researcher used panel data and run a multi variate regression of firm size amongst other control variables against firm performance as measured net income plus advertising expenses over total assets.

Tahir, Sabir, Alam and Ismail (2013) investigated the impact of firm's characteristics on stock return: a case of non-financial listed companies in Pakistan. They asserted that the unique characteristics of the firms have some power to predict the expected returns. This study was conducted with an attempt to bridge the gap in the literature by offering empirical evidence about firm’s characteristics and their effect to stock returns. The secondary data of 307 Nonfinancial companies listed in Karachi Stock Exchange (KSE) were collected from the B-Recorder and Basic Balance Sheet Analysis (BBA)
issuised by the State Bank of Pakistan for the period from 2000 to 2012. Market Capitalization (MC), sales Growth (SG), Earnings per Share (EPS) and Book to Market value (BMV) were taken as independent variables while Stock Market Returns as dependent variable. First two independent variables were used as proxies for size effect while later as value effect. Economic techniques like Correlation Matrix, Multiple regression analysis, Unit root test and Granger Causality were applied for empirical testing of the data. Results revealed that MC, EPS and BTMV value had significant impact while sales growth had no effect on stock market returns.

Dogan (2013) studied the relationship between firm’s age and productivity in Istanbul. Data was collected from 200 companies listed on the Istanbul Stock Exchange from 2008 to 2011. Correction analysis was used to analyse the collected data. The result shows a negative relationship between age and profitability.

Darabil, Ataeizadeh and Abdi (2014) investigate the relationship between firm growth opportunities and changes ratio in retained earnings of companies listed in Tehran stock Exchange. A sample of 101 companies listed in Tehran Stock Exchange during the period data were analysed using SPSS 20 software, Eviews 7 and Mineable 16. Results of study of test of hypothesis indicate that there is significant and inverse relationship between company’s growth opportunities and changes ratio in retained earnings of companies.

Ekonomisi and Dergisi (2014) investigated the interaction between firm growth and profitability using panel data on 137 Turkish listed manufacturing firms over the period 1997-2012. Using system-GMM (Blundell and Bond, 1998) growth and profit regressions are estimated. According to results there is a statistically significant positive relation between current profits and current growth. The impact of current growth on current profits in the case of Turkish manufacturing firms. The results suggest that lagged profits affect current profits positively and lagged profitability is a significant determinant of current profits. Moreover, the link between current profit and lagged profits is much stronger than the link between current growth and current profits.

Khaled, Abdulkareem and Chew (2014) in their study entitled “the association between firm characteristics and corporate financial disclosures: evidence from UAE companies” provides empirical evidence of the impact of firm specific characteristics on corporate financial disclosures amongst UAE companies. A total of 153 public joint-stocks companies, listed and unlisted, were incorporated at the time of study. Both descriptive statistics and multiple regression analyses are used to test the relationship between the characteristics of UAE firms and the extent of their financial disclosure. Eight hypotheses were established to examine the relationship between a number of explanatory variables (namely, type of industry, listing status, and return on equity,
liquidity, market capitalization, foreign ownership, non-executive directors, and audit committee) and the extent of disclosure in corporate annual reports. The results of this study show that listing status, industry type, and size of firm are found to be significantly associated with the level of disclosure. This finding not only provides support for previous studies, but also is of relevance to those in the UAE who want to understand corporate disclosure and should also be of interest to UAE user-groups. Conclusions drawn from this study may be of interest to policy makers and regulators who want to improve corporate financial disclosure in their countries.

2.3.2 EFFECT OF FIRMS’ LEVERAGE ON FINANCIAL PERFORMANCE OF FIRMS

Selahattin and Aynur (2014) conducted a study on Equity Returns, Firm-Specific Characteristics and Sector Rotation: Evidence from Turkey. The study examines the firm-specific characteristics that effect on equity returns depending on sector rotation scheme throughout four financial cycle stages for an important emerging market, Turkey. For this purpose, using panel data for twenty-five non-financial equities selected from ISE-100 companies and twenty-six firm-specific characteristics in 2005Q1-2011Q1 it is analysed empirically whether firm-specific factors that effect on equity returns differ among equity groups classified by sector rotation scheme throughout financial cycle stages. The firm-specific characteristics have been reduced in five factor indexes which labelled liquidity, profitability, efficiency, growth, and valuation using factor analysis.

Robert, Mohamed and Onesmus (2015) explored the effect of corporate size on profitability and market value of listed firms in Kenya. Data for companies which were active in the Nairobi stock Exchange (NSE) between 2010 to 2014 were used. Panel correlation and multiple regression methods were used in the empirical estimations. Result indicates that there is a position significant relationship between firm size and profitability, whereas firm size insignificantly position predicts profitability. In addition, the result shows that corporate size has no statically significant impact on firm market value.

Mirie and Murigu (2015) conducted a study on The Determinants of Financial Performance in General Insurance Companies in Kenya. The study adopted a descriptive research design. The contribution of the general insurance industry in Kenya to the gross domestic product is at 2.08%. This is low and hence the need to establish factors that can influence improved performance of some of the key players – the general insurance companies. The study was therefore to establish the factors that affect the profitability of general insurers in Kenya. The study employed multiple linear regressions, with return on assets as the dependent variable, and considered all the general insurance companies in Kenya for the period 2009-2012. Profitability was positively related to leverage, equity capital, management competence index and negatively related to size and
ownership structure. The study did not find a relationship between performance and retention ratio, liquidity, underwriting risk and age.

Ibrahim and Hussaini (2015) conducted a study on Firms’ Specific Characteristics and Stock Market Returns (Evidence from Listed Food and beverages Firms in Nigeria). The data for the study was purely from secondary sources obtained from the annual reports of the sampled firms as well as NSE fact book. Data was analysed using several options of multiple panel data regression. But the most robust of all is OLS regression as suggested by ‘Breusch and Pagan Lagrangian Multiplier Test for Random Effect’. The study adopted both correlation and ex-post facto research design. Because of the mix of opinion in the literature, the mix of empirical findings, and the limited empirical works on the relationship between firms’ specific characteristics and Stock Market Returns particularly with reference to listed food and beverages firms in Nigeria, it is not out of place to conduct further research on this area to ascertain position. Findings revealed that Market Capitalization has a significant negative impact on Stock Market Returns of listed food and beverages firms in Nigeria; while the impact of Debt-to-Equity Financing and Earnings per Share on Stock Market Returns are found to be positive and statistically significant.

Osunsan, Nowak, Mabonga, Pule, Kibiroge, and Baliruno (2015) examined the effect of firm age on the performance of firm’s operation in Kampala, Uganda using both financial (net profit before tax) and nonfinancial (operational) performance indicators. Data were collected from a sample of 409 firms. Two hypotheses were formulated for the study, namely: (i) There is a significant difference between firm age and the level of performance (ii) There is a significant position relationship between firm age and performance. ANOVA and regression analysis were used to test the hypothesis. Both hypotheses were accepted after the analysis implying that firm age has a strong positive relationship on firm performance. The study also found that both financial and non-financial indicators could be used as effective measures of performance. Suggestion was made that emphasis should not only be placed on starting up, but also on the sustainability and longevity of the firms that are operational in Kampala, Uganda.

Rafiq, Salim and Smyth (2015) examined the impact of research and development (R&D) on the profitability and sales of mining firms, in China and United States (US) and the moderating effect of firm age. Panel data were obtained from a combined 168 major US and Chinese mining firms from 2009 to 2013. Coarsened Exact Matching (CEM) method was used in analysing the collected data. The result suggests that R&D activities play a significant role in increasing sales and generating profits for both US and Chinese mining firms. On average, a firm engaging in R&D activities earns 4% to 11% higher sales and generates 4% to 13% more profits than firms that do not engage in R&D.
activities. Result also shows that R&D is negatively related to profit and sales in the relatively younger Chinese mining firms. Explanation was offered that the average age of Chinese mining firms much lower than US mining firms, Chinese mining firms suffer from the liability of newness. Consistent with this explanation, it was observed that, in the mining industry, firm age moderates the relationship between R&D activities and financial performance.

Leite and Carvalhal (2016) investigated the relationship between firm ages, value, and performance and to verify if age affects their corporate governance in Brazil. Data were obtained from 2002 to 2009. Return on Asset (ROA) and the price – to – Book (P/B) was used as proxies for firm performance and value, respectively. These two variables were tested separately with the objective to confirm the influence of aging in the performance and value of the firms. To measure the quality of governance, we used the corporate governance index (CGI) of Carvalhal and Leal (2005) and the listing on BM & FBovespa’s New Market (NM). A panel regressions analysis was applied on the data collected from the 250 firms from 2002 to 2009. Result shows that older firms show higher value and better on their investments. It was also observed that older firms show better governance practices.

Chuke, Idam, Bamidele, and Sergius (2016) in their study on The Impact of Debt Structure on Firm Performance: Empirical Evidence from Nigerian Quoted Firms provides an empirical investigation of the impact of debt structure on the performance of Nigerian quoted firms. It was conducted using 12-year annualized panel data spanning the period 2001-2012 for cross section of 43 firms from different sectorial classifications. The data were collated from the annual reports of the sampled firms and Nigeria Stock Exchange fact books. The study employed three regression estimations (Pooled OLS, Fixed Effects and Random Effects) as a result of unobserved heterogeneity in the dataset. The outcome from the regression estimations showed that debt structure has negative and significant impact on the performance of Nigerian quoted firms within the period under review. The study concludes that debt structure contribute negatively to performance of Nigerian quoted firms; thereby agree with pecking order theory.

Solakoglu (2016) in his research on the role of firm characteristics on the relationship between gender diversity and firm performance. The purpose of this paper is to understand the effect of gender diversity on firm performance and evaluate how that relationship is influenced by some firm-specific factors for firms in an emerging market. The author collected firm level financial data and firm level characteristics for the firms listed in BIST100 index of Borsa Istanbul for the period between 2002 and 2006. Due to endogeneity of gender diversity and firm performance, the authors utilize unbalanced panel data with 2SLS specification. To observe the sensitivity of results across measures of performance, three measures of performance, two accounting-
based and one market-based, are utilized. The study finds some weak evidence that gender diversity impacts firm performance. In particular, the findings imply significant association between gender diversity and firm performance for firms that are targeting local markets, for firms in the financial sector and for firms that are family or block-owned.

Amahalu and Ezechukwu (2017) conducted a study on the effect of firm characteristics on financial performance of quoted deposit money banks in Nigeria. This study assesses the extent at which firm characteristics affects financial performance of quoted deposit money banks in Nigeria from 2010-2015. Three hypotheses were formulated in line with the objective of the study. Ex-post facto research design and time-series data were adopted and the data for the study were obtained from Fact books, annual reports and account of the quoted banks under study. Pearson coefficient of correlation and ordinary least square (OLS) were applied to test the three hypotheses formulated with aid of STATA 13 statistical software. Findings showed that firm characteristics (proxy by Size) have a positive and statistically significant effect on financial performance (proxy by Return on Asset, Return on Equity and Return on Capital Employed) at 5% significant level. Based on these findings, the study recommends among others that banks should adequately manage how they reinvest their resource so as to prevent any form of mismanagement of resource that can guarantee their existence in business.

Pervan, pervan and curak (2017) examined the influence of age on firm performance from Croatian food industry. Data were collected from a sample of 956 firms in the Croatian food industry during the 2005-2014 periods. Data were collected from the AMADEUS data base compiled by Burea van Dijk Since AMADEUS provides information at the 4-digit (NACE Rev.2) level, the sample was created by including all firms recorded in any 4-digit (NACE Rev.2) food processing industry (categories between NACE -1011 and NACE 1099) Dynamic panel analysis was applied on the collected data. The result shows that age negatively affects firm’s performance. As firms get older, benefits of their accumulated knowledge in all crucial aspects of business (technology, supply, channels, customer’s relations, human capital and financing costs) become overcome with their inertial, inflexibility and osseous by accumulated rules, routines and organizational structure. Beside firm’s age, other firm’s special factors influencing profitability of the firms operating in Croatian food industry including size, liquidity and solvency.

METHODOLOGY

3.1 RESEARCH DESIGN

The project is an ex post facto research which provides a systematic and empirical solution to research problems, by using data which are already in existence.
3.2 POPULATION OF THE STUDY
The population of the study is the oil and gas sector on the floor of the Nigeria Stock Exchange.

3.3 SAMPLE SIZE OF THE STUDY
Three oil and gas firms were sampled for the study. They are: Total Nig. Plc, and Oando Plc.

3.4 SAMPLING TECHNIQUES
The researcher chose random sampling techniques because it guarantees an equal opportunity for all concerned companies to be selected.

3.5 NATURE AND SOURCES OF DATA
The study used secondary data for analysis on the firm characteristics and financial performance of oil and gas firms in Nigeria, which were extracted from the annual reports and accounts of the selected firms from the period of 2007 – 2016.

3.6 DESCRIPTION OF RESEARCH VARIABLES
The independent variables of the study are sales growth, firm size and leverage. The dependent variable is financial performance proxied by return on assets (ROA)

3.6.1 SALES GROWTH
The amount by which the percentage sales volume of a company's products or services has grown, typically from year to year. It is calculated by dividing the difference in sales between two periods and multiplying by 100. In other words:

$$\frac{Current\ Period\ NetSales - Prior\ Period\ NetSales}{Prior\ Period\ NetSales} \times 100$$

3.6.2 LEVERAGE
Leverage is any technique involving the use of borrowed funds in the purchase of an asset, with the expectation that the after tax income from the asset and asset price appreciation will exceed the borrowing cost. It is mathematically defined as

$$Financial\ Leverage = \frac{Total\ Debt}{Shareholders\ Equity}$$

3.6.4 FINANCIAL PERFORMANCE
Financial performance is proxied by return on assets. Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings. Calculated by dividing a company's annual earnings (profit after tax) by its total assets, ROA is displayed as a percentage. It is calculated thus:

$$Return\ on\ assets = \frac{Net\ Profit\ after\ taxes}{Total\ assets}$$
3.7 MODEL SPECIFICATION

Multiple regression models were used to find the correlation between firm characteristics and market price of shares of manufacturing companies; the base models took the following form:

\[ Y_{it} = \beta_0 + \beta_1 X_{it} + \mu_{it} \]

Where:

- \( Y_{it} \) is the dependent variable.
- \( \beta_0 \) is the intercept.
- \( \beta_1 \) is the slope
- \( X_{it} \) is the independent variable.
- \( \mu_{it} \) are the error terms or variations that cannot be explained by the above model.
- \( i \) is the number of firms and
- \( t \) is the number of time periods.

APPLYING THE MODEL

\[ \text{ROA}_{it} = \beta_0 + \beta_1 \text{SG}_{it} + \beta_3 \text{LEV}_{it} + \mu_{it} \]

Where: ROA = Return on asset

SG = Sales Growth

LEV = Leverage

\( \mu_{it} \) = Error Term

3.8 TOOLS FOR DATA INTERPRETATIONS

Results were being interpreted using probability (p-value) and \( R^2 \) (coefficient of determination)

**Decision Rule:** Reject the null hypothesis if the p-value is < 0.05 (i.e. at 5% significance level), if not accept null hypothesis and accept the alternate hypothesis.

DATA PRESENTATION AND ANALYSIS

4.1 USING POOL DATA ANALYSIS

REINSTATEMENT OF HYPOTHESES

**HYPOTHESIS ONE**

Ho: Selected Companies Sales Growth has no significant effect on their ROA.

Hi: Selected Companies Sales Growth has a significant effect on their ROA.

Decision Rule: Accept Ho if insignificant at 5% level of significance otherwise reject.

**Regression Results of the effect of Selected Companies Sales Growth on their ROA**

<table>
<thead>
<tr>
<th>( R )</th>
<th>( R^2 )</th>
<th>( \text{Standard Error} )</th>
<th>( \text{Coefficient} )</th>
<th>( \text{Probability} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.012503988</td>
<td>-0.036870812</td>
<td>1.946738089</td>
<td>-0.00000001</td>
<td>0.620295732</td>
</tr>
</tbody>
</table>

Source: Researcher’s Computations, 2017
Table 4.11 shows the effect of Selected Companies Sales Growth on their ROA. The results in Table 4.11 indicate $R^2$ as 0.012503988. This means that 12% of the variations in Selected Companies Sales Growth were caused by changes which produced their ROA. This means that the remaining 88% can be caused by other variables that are not discussed in this study. Analysis also shows that Beta coefficient of -0.000000001. This means that a naira increase in the budget will cause a decrease of 0.0000001 in Selected Companies ROA. The study also shows a p-value of 0.620295732. This means that the change in the Selected Companies Sales Growth has negative and insignificant effect on its ROA.

**Decision:** Accept Ho and reject Hi. This means that Selected Companies Sales Growth has negative and insignificant effect on its ROA at 5% at level of significance.

**HYPOTHESIS TWO**

Ho: Selected Companies Firm Leverage has no significant effect on their ROA.

Hi: Selected Companies Firm Leverage has a significant effect on their ROA.

**Decision Rule:** Accept Ho if insignificant at 5% level of significance otherwise reject.

Table 4.2 Regression Results of the effect of Selected Companies Firm Leverage on their ROA.

<table>
<thead>
<tr>
<th>R $^2$</th>
<th>R $^2$ Adjusted</th>
<th>Standard Error</th>
<th>Coefficient</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.008824354</td>
<td>-0.040734428</td>
<td>1.95036171</td>
<td>-0.137811384</td>
<td>0.677548448</td>
</tr>
</tbody>
</table>

Source: Researcher’s Computations, 2017

Table 4.2 shows the effect of Selected Companies Firm Leverage on their ROA. The results in Table 4.10 indicate $R^2$ as 0.008824354. This means that 88% of the variations in Selected Companies Firm Leverage were caused by changes which produced their ROA. This means that the remaining 12% can be caused by other variables that are not discussed in this study. Analysis also shows that Beta coefficient of -0.137811384. This means that a naira increase in the budget will cause a decrease of -0.137811384 in Selected Companies ROA. The study also shows a p-value of 0.677548448. This means that the change in the Selected Companies Firm Leverage has negative and insignificant effect on its ROA.

**Decision:** Accept Ho and reject Hi. This means that Selected Companies Firm Leverage has negative and insignificant effect on its ROA at 5% at level of significance.
SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY OF FINDING

In analyses made in the preceding section, the following core findings were made:

(i) Sales growth has negative and insignificant effect on return on asset of oil and gas firms in Nigeria

(ii) Firm leverage has negative and insignificant effect on return on asset of oil and gas firms in Nigeria

5.2 CONCLUSION

No doubt, firm characteristics, as shown in numerous existing researches have effect on firm performance. This is even more so when financial performance is discussed. These previous assertions have been culminated by this present study. It has been established in this study that firm characteristics of sales growth and leverage have negative and insignificant effect on return on assets of oil and gas firms. Therefore, this study submits that firm characteristics have negative and insignificant effect on firm performance.

5.3 RECOMMENDATIONS

Consequent upon the findings of this study, the following recommendations were made:

(1) Oil and gas firms should trade cautiously in managing equilibrium between their liabilities and assets.

(2) Sales growth should be managed properly to ensure that they reflect accordingly

REFERENCES


