OWNERSHIP STRUCTURE AND PERFORMANCE OF LISTED OIL AND GAS COMPANIES IN NIGERIA

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Abstract
The study examined the effect of ownership structure on the financial performance of listed oil and gas companies in Nigeria for the period of 2006-2015. Secondary data were used, extracted from the financial reports and accounts of the companies that made the sample of the study. The study employed robust OLS as the best estimator of the regression model. One of the findings revealed Managerial ownership has a significant impact on the financial performance of oil and gas companies in Nigeria. The study recommends that, Managers should not be given the majority of shareholding in the ownership structure of the listed downstream oil and gas companies in Nigeria but rather they should be given a small portion of the shareholding of the listed oil and gas companies in Nigeria, this will motive and encourage them to perform better in order to achieve the desired company goals and objectives as well as comply with the laid down guidelines of the companies which will increase their financial performance and their integrity.

Keywords: Ownership Structure, Performance, Downstream, Oil and Gas Companies, Nigeria

1. Introduction
The global enhancement of economic relations and activities has made companies more professional which leads to the separation of ownership from management. Although this separation could potentially have a significant role in achieving desirable objectives for firms, however, it sometimes creates a conflict of interest between managers and owners generate agency problems. The corporate governance function is intended to develop ownership structures, and corporate governance structures for companies to ensure managers to behave ethically and make decisions that benefit shareholders so as to facilitate increased efficiency of a firm.

Thus, the relation between ownership structure and firm value has been reported to be one of the most interesting issues in corporate finance (Sanda, Mika’iliu&Garba, 2005). It is the subject of continuous debate since the original paper of Berle and Means (1932) who suggested that firms with a wide dispersal of shares tend to under-perform. Berle and Means (1932) observed that during the 1920s, ownership structure in public companies became one in which shareholders had become so numerous and dispersed that they were no longer able to manage the companies they owned and needed to monitor management. In recent years the discussion has centred on an assessment of the relative advantages and drawbacks of concentrated ownership structure as opposed to the separation between management and ownership (Usman&Yero, 2012).

Agency theory has contributed to the understanding of the problems underlying the conflict within organizations (Jensen &Mecklin, 1976). From the conflicts of interest that can be generated between the various stakeholders, the literature has given greater attention to: conflicts between owners and managers/directors, conflicts of interest between owners and the company’s creditors (Jensen &Mecklin, 1976), and conflict between majority and minority owners, leading to problems of expropriation (Shleifer&Vishny, 1986).
In the light of the conflicts between owners and manager, one of the objectives pursued by governance mechanisms is to prevent managers/directors from taking inadequate measures or from performing in a manner that is inconsistent with maximizing value to the owner, a phenomenon of management immunity can sometimes develop. This is known in the literature as observed by Jensen and Mecklin, (1976) as ‘management entrenchment’. Management entrenchment reflects the situation in which managers/directors are immune to the discipline imposed by a wide range of control mechanisms (Berger, Ofek & Yermack, 1997). The level of the managers/directors’ entrenchment according to Demsetz (1983); Bebchuk, Cohen and Ferrell (2009) may be enhanced by several factors, particularly the weight of ownership held and voting power in decision-making. Managers/directors can also choose to invest in projects that would be rejected when the rate of return required by the owners is considered, but which would meet their own expectations (Fama & Jensen, 1983; Bebchuk, Cohen, & Ferrell, 2009; Lisboa, 2007). For higher levels of managerial ownership, performance increases again, as the owner/manager/director of the company has additional incentives in valuing share price (Loderer & Martin, 1997).

On the other hand, ownership concentration is another mechanism of corporate governance which influences agency costs (Jensen & Meckling, 1976). Based on this premise, the effect of ownership concentration on performance has been widely documented in the literature (Sanda, Mika’ilu, and Garba, 2005). Since dispersion creates free riding problems and makes it difficult to supervise, a positive relationship is expected between ownership concentration and corporate performance. Consistent with this hypothesis supervision, Shleifer and Vishny (1986) refer to the important role played by large owners, and how the stock price rises as the percentage of shares held by them increases. Also, Grossman and Hart (1986) argue that owners with a high stake in the company show greater willingness to play an active role in decisions as they can internalize the benefits of their monitoring effort. The method used by large owners to oversee the management/administration is a result of informal agreements drawn up amongst them (Shleifer & Vishny, 1997). Nevertheless, ownership concentration can lead to conflicts between controlling and minority owners leading to worse performance, as advocated by expropriation hypothesis. Conversely, if the value of the company is too high in relation to expectations generated and participation is subject to high risks, the owners are driven to sell part of their holdings (Pinto & Augusto, 2014).

Accordingly, major multinational oil companies in Nigeria operate in the Niger Delta area of that has witness several issues of militancy kidnapping and vandalisation of company’s asset. Further, the prices of crude oil and oil products have historically been subject to wide fluctuation while the ownership of oil and oil reserves has long been a powerful force in the economic, political, and military relationships among nations. However, it is necessary and logical to carry out a study on financial performance in relation to ownership structure of the Nigerian downstream sector listed oil companies. This is because firm financial performance could help the diverse shareholders to make better decisions regarding risk and return rates. Due to this fact that financial performance of companies is one of the criteria for assessing firm success and firm value, thus, investigating the effect of ownership structure on firm financial performance is very important as it provides useful information for both owners of the companies and other users of financial Statements. It is against this background that this study attempt to assess the effect of ownership structure on the financial performance of listed oil companies in Nigeria.

Conflict of interests between managers and shareholders as well as between controlling and minority shareholders lies at the heart of the corporate governance literature (Jensen & Mecklin,
1976). The literature however fails to produce any conclusive evidence on the relationship between ownership structure and firm profitability as Mitton (2002), Joh (2003) found a positive effect of ownership on firm performance while Dalton, Daily, Certo, and Roengpitya(2003); Sanchez, Juan and Garcia (2007) on the other hand find no substantive relation between ownership structure and financial performance. Most of the studies are in banking sector, manufacturing firms, conglomerates (Andow & David, 2016; Saifullahi, Muhammad &Shehu, 2015) but has been carried in the oil and gas sector.

These inconclusive findings by previous literature makes this study relevant as the study’s domain which is the Nigerian oil and gas sectors is characterised with business who explore crude oil from the Niger Delta region of the country that has experienced several issues of militancy kidnapping and destruction of company’s asset. Given that researchers like Pinto & Augusto (2014) have argued that high environmental risk that affects the operation of business might instigate owners to sell part or all of their holdings which will consequently lead to a loss in equity other decision making roles they play in the board, it is therefore necessary to carry out such study to investigate the impact of ownership structures on the financial performance of oil and gas firms in Nigeria as previous studies like Demsetz and Villalonga (2001) have observed that when owners of a privately held company decide to sell shares, and when shareholders of a publicly held corporation agree to a new secondary distribution, they are, in effect, deciding to alter the ownership structure of their firms and, with high probability, to make that structure more diffuse which ought to be influenced by the profit-maximizing interests of shareholders, so that, as a result, there should be no systematic relation between variations in ownership structure and variations in firm performance. Also, most of the studies in this area failed to make some robust tests in order to improve the validity and reliability of the statistical inference derived from the studies. However, this study conducts heteroskedasticity, hausman, Lagragian tests among others.

Though there are several studies that have investigate ownership structure as it relates to earnings management (Usman and Yero, 2012), dividend policy (Miko and Kamardin, 2015), capital structure (Mahrt-Smith, 2000), firm value San-Martin-Reyna and Durán-Encalada, 2012), firm performance (Saifullahi, Mohammed, and Hassan, 2015); there is however not many studies that have investigated the impact of ownership structures on the financial performance of oil and gas firms in Nigeria despite their contribution to the Nigerian economy at large and also noting the fact that since ownership in oil and gas companies in Nigeria varies with concentration and managerial ownership, the result is uncertain as to how it will affect firm financial performance. In this wise, the study raises the question how does ownership structure influences the financial performance of oil and gas companies in Nigeria.

The main objective of the study is to examine the effect of ownership structure on the performance of listed oil and gas companies in Nigeria. Other specific objectives are:

i. To examine the impact of managerial ownership (MGO) on the financial performance of listed oil and gas companies in Nigeria.

ii. To investigate the influence of concentrated ownership (INST) on financial performance of listed oil and gas companies in Nigeria.

The following null hypotheses were formulated in concordance with the above set out specific objectives of the study to test the influence of ownership structures on financial performance of listed oil and gas companies in Nigeria.
H$_{01}$ Managerial Ownership has no significant impact on financial performance of listed oil and gas companies in Nigeria.

H$_{02}$ Concentrated Ownership has no significant influence on financial performance of listed oil and gas companies in Nigeria.

The study dwells on ownership structure and financial performance of oil and gas companies in Nigeria. It covers a period of 10 years (2006 – 2015). The selection of the period is informed by the increase in the level of activities in the oil and gas sector. The independent variables of the study include Managerial Ownership and Concentrated ownership while the dependent variable is the firm’s performance. The justification for choosing oil and gas firms is the fact that the sectors is characterized with firms with various ownership structure.

2. Review of Empirical Literature

2.1 Managerial Ownership and Financial Performance

Andow and David (2016) examined the influence of managerial ownership on the financial performance of conglomerate firms in Nigeria from 2004-2013. Secondary data was employed which was analysed with multiple linear regression. The study found that, managerial ownership has a significant negative impact on the firms’ performance. It was recommended that, managerial ownership should not control up to 50% or more of shares allotted in the company which helps in reducing their control over other shareholders which may be responsible for poor performance. The study concluded that, managerial ownership plays a negative role on the financial performance of conglomerate firms. This study differs from Andow and David (2016) as it is looking at oil and gas companies. Basyith, Fauzi and Idris (2015) investigated the impact of managerial ownership on firm performance of blue chip firms listed on Indonesia Stock Exchange from 2010-2014. The study has 45 firms as its population where 38 were used as sample. The study used secondary data only which was analyzed using regression analysis. The study found among other things that, managerial ownership has a significant negative impact on firm performance. The study concluded that, managerial ownership influences firm performance. This study differs from Basyith, Fauzi and Idris (2015) as it examines ownership structure and financial performance of oil and gas companies from 2006-2015.

Saifullahi, Mohammed and Shehu (2015) examined the influence of managerial ownership on the performance of 6 conglomerate companies in Nigeria from 2008-2013. The study employed secondary data and it was analyzed with multiple linear regression. It was found that, managerial ownership has a strong negative significant impact on the conglomerate companies in Nigeria. However, the study recommended that, managers should be discourage by the board to hold a substantial unit of shares by instituting a policy that will restrict the number of their holdings to avoid decrease in performance. The study concluded that, managerial ownership negatively affects performance of conglomerates in Nigeria. The current study examines ownership structure and financial performance of oil and gas companies.

Gugong, Arugu and Dandago (2014) studied the impact of ownership structure on the financial performance of 17 listed insurance firms in Nigeria from 2001-2010. The study employed secondary data which was analyzed with regression technique and the study found that, managerial ownership has a significant impact on insurance companies’ performance. It was recommended that, the code on owner's equity of listed insurance companies in Nigeria should be sustained and be promoted for full implementation so that the firms can have a perpetual life. The study
concluded that, managerial ownership influences insurance companies’ performance. The current study examines ownership structure and financial performance of oil and gas companies and the study failed to conduct robustness tests in order to improve the validity of their findings.

Zakaria and Purhanudin (2014) examined the impact of managerial ownership on the performance of Malaysian listed trading and services firms from 2005-2010. The study used secondary source of data and the data was analysed using regression technique. It was found that, managerial ownership positively influences the performance of the firms and the study concluded that, the higher the managerial ownership, the high firm reports high performance. This study differs from that of Zakaria and Purhanudin (2014) as it looks at ownership structure and financial performance of oil and gas companies.

A review of relevant literature like those of Demsetz and Villalonga (2001), Gedajlovic and Shapiro (1998) suggests that the relationship between insider ownership and performance has two inflection points; however, studies are not unanimous as to the percentage at which the inflection occurs and diverge in the models and variables used. In the study of Demsetz and Villalonga (2001) for instance, investigates the relation between the ownership structure and the performance for a sample of 223-firm corporations for the period 1976–1980. The study used secondary data which was analysed with regression technique. Ownership structure was measured as the shares owned by managers. They found no statistically significant relation between ownership structure and firm performance. The current study examines ownership structure and financial performance of oil and gas companies.

However in contrast to the findings of Saifullahi, Mohammed, and Hassan (2015); Demsetz & Villalonga (2001), in a more recent study, Zakaria, Palanimally and Purhanudin, (2014) investigated ownership structure and firm performance in Malaysian trading and services sector for a period of six years (2005 to 2010). The study used secondary data and it was analysed with regression technique. Their findings revealed that when firm has managerial ownership, it can enhance the firm performance. They further found that trading and Services firms are not affected by ownership structure under pre crisis period as compared to during post crisis period. This finding is also supported by Sandra, Mika’iulu and Garba (2005) posited that director and managerial shareholding is significantly negatively related to firm performance. This compares with outside directors and ownership concentration, which are not significant in all cases. This finding also does not support Adenikinju and Ayorinde (2001), who saw no significant relationship between firm performance and insider ownership. In addition, McConnell and Servaes (1990) credited a significant relation between insider ownership and firm performance.

On the other hand a non-significant relationship exists in the work of (Loderer and Martin 1997). Managerial ownership has negative and strong impact on firm performance of study with 8 sample firms (Faruk & Mailafia, 2013). This study support the study of Morck, shleifer and Vishney, (1998) who analyzed the relationship between the manager’s percentage of shares and firm performance. They gave a positive for holding within three ranges, 0% to 5%, beyond 25%, but negative one between 5%-25%.

2.2 Ownership Concentration and Financial Performance
Concentrated shareholding or ownership which is also referred to as block ownership is the proportion of shares (usually more than 5%) owned by a certain number of shareholders. It is argued that the higher the number of shares owned by the block holders, the more managers action
will be regulated and monitored to act in the interest of the shareholders (Sanda et al. 2005). However, some researchers have reported mixed findings between concentrated ownership and financial performance. Basyith, Fauzi and Idris (2015) investigated the impact of block-holder ownership on firm performance of blue chip firms listed on Indonesia Stock Exchange from 2010-2014. The study has 45 firms as its population where 38 were used as sample. The study used secondary data only which was analyzed using regression analysis. The study found among other things that, Block-holder ownership has a significant positive impact on firm performance. The study concluded that, Block-holder ownership influences firm performance. The current study examines ownership structure and financial performance of oil and gas companies.

Further, Pinto & Augusto (2014) analyzes the causal relationship between the ownership concentration and operational performance using a sample of 4163 Portuguese SMEs and panel data models. The study used secondary data and it was analysed with regression technique. The main results show an endogenous and dynamic relationship between those variables. The quadratic specification established between ownership concentration and operational profitability suggests that for low levels of control rights the expropriation hypothesis prevails and for high levels the supervision hypothesis prevails. The study concluded that, ownership structure affects operational performance of Portuguese SMEs. The current study examines ownership structure and financial performance of oil and gas companies.

In the context of Japanese manufacturing enterprises, Hu and Izumida (2008) conducted a study where they analyze the causal relationship between ownership concentration and performance. Secondary source of data was used and regression was used to analyse the data. The results suggest a U-shaped relationship between ownership concentration and performance, in line with the expropriation effect predominant in low levels of ownership and the supervision effect for intermediate levels of ownership, indicating that both dispersed ownership and high ownership concentration are associated with improved performance. On the other hand, they showed an insignificant effect of performance on ownership concentration, supported by the fact that capital markets have low liquidity, which prevents larger owners from changing their portfolios depending on performance. Considering the results, they conclude that ownership concentration is not determined by performance in illiquid markets, where it is difficult to transact and change ownership in response to changes in circumstances. The current study examines ownership structure and financial performance of oil and gas companies.

Gedajlovic and Shapiro (1998), provide support for a non-linear relationship between ownership concentration and performance, diverging, however, as to the value from which the effect of supervision replaces that of expropriation. This difference stems from different corporate governance systems, the legal protection of investors, the development of capital markets, the role of the market in corporate control, the industrial sector, among others (Shleifer & Vishny, 1997; La Porta-López, Shleifer, & Vishny, 1998). This study focuses discussions on three financial theories in relation to the effect of ownership structure on performance of firms. Namely: institutional Theory, stakeholder theory, and the agency theory. The study however leans on the agency theory as it the best theory that explains the relation between ownership structure and financial performance in the context of this study.

3. Methodology and Model Specification
This study adopts the correlation design. The design is considered appropriate, in that, it is better in determining the relationship and degree of ownership structure influence on performance in our study which may permit prediction. This research work is descriptive and highly empirical as the study seeks to describe the relationship between the dependent and independent variables and further give a basis with which a prediction can be made on the dependent variable. The population of the study is all the downstream seven oil and gas firms in Nigeria that are listed on the Nigerian Stock Exchange as at 31\textsuperscript{st} December, 2015. The listed oil firms operating in Nigeria as at 31\textsuperscript{st} December, 2015 are: Conoil Plc, Eternal Plc, Forte Oil Plc, Mobil Oil Nig Plc, Mrs Oil Nigeria Plc, Oando Plc, and Total Nigeria Plc. However, in order to get complete data for the time period and to collect data from firms of similar operations, this study employs a criteria that only listed oil and gas companies that have been in operation for the past 10 years and are engaged in petroleum marketing. On application of the criteria, the new population of the study is reduce to seven listed oil and gas firms that are engaged in petroleum marketing which were used as sample of the study and name thus: The listed oil firms operating in Nigeria as at 31\textsuperscript{st} December, 2015 are: Conoil Plc, Eternal Plc., Forte Oil Plc., Mobil Oil Nig Plc., Mrs Oil Nigeria Plc., Oando Plc, and Total Nigeria Plc. The justification for choosing oil firms on the fact that the sector is characterized with firms with various ownership structures. The data for this study was obtained mainly from secondary source which was extracted from the annual report and account of listed oil companies in Nigeria. Data was extracted from the published audited annual reports and accounts of the selected firms from 2006-2015. This period under review is considered appropriate because it provides reasonable time frame of 10 years which relevant data can be collected and inference can be drawn (Gujarati, 2013). The data is quantitative and panel in nature.

A multiple regression analysis was conducted consistent with Saifullahi, Mohammed, Shehu (2015) and Shehu and Yero (2012). Panel data is used in examining changes in variables over time and differences in variables between subjects. The multiple regression technique is used in this study because of the effectiveness and efficiency of the technique in estimating the statistical relationship/impact of several independent variables on one dependent variable (Gujarati, 2013). Hence, this is consistent with the objective of this study, impact of ownership structure on the financial performance of listed oil and gas companies in Nigeria. In view of the panel nature of the data (cross-sectional and time series) for the study, the study employs different regression models, which include Ordinary Least Squares (OLS) Model, Fixed Effect (FE) Model and Random Effect (RE) Model. In order to know which result to interpret between the OLS, FE and RE, this study applies the Hausman Specification Test and Breusch and Pagan Lagrangian Multiplier Test before arriving at the most suitable model for the study (Gujarati, 2013). Further, additional test for Heteroskedasticity, Autocorrelation and Multicollinearity have been conducted in order comply with the classical assumption of OLS and the model of the study in general (Gujarati, 2013). The analysis is conducted using STATA 10.1 version.

The model of the study using balanced panel data is presented as follows:

\[
\text{PERF}_{it} = \beta_0 + \beta_1 \text{MGO}_{it} + \beta_2 \text{CNSTOWN}_{it} + \text{SIZE}_{it} + \mu_{it}
\]

Where:
- \text{PERF} = \text{Firm performance of firm } i \text{ in year } t
- \text{MGO} = \text{Managerial Ownership } i \text{ in year } t
- \text{CNST} = \text{Concentrated Ownership } i \text{ in year } t
\( \beta_1 - \beta_3 = \text{Coefficient of explanatory variables i in year t} \)

\( \beta_4 = \text{Firm Size i in year t} \)

\( \beta_0 = \text{Constant or Intercept} \)

\( \mu = \text{Error Term} \)

\( i = \text{Individual firm identifier} \)

\( t = \text{time} \)

4. Results and Discussion

4.1 Descriptive Statistics

The descriptive statistics is presented in table 1. The calculated minimum, maximum, mean and standard deviations of the data for the variables used in the study are presented.

**Table 1 Summary of Descriptive Statistics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.00006</td>
<td>0.0618</td>
<td>0.0232</td>
<td>0.0129</td>
<td>0.0460</td>
</tr>
<tr>
<td>MGO</td>
<td>0.001</td>
<td>1.1</td>
<td>0.1672</td>
<td>0.2439</td>
<td>0.0000</td>
</tr>
<tr>
<td>OWC</td>
<td>0.14</td>
<td>0.93</td>
<td>0.6895</td>
<td>0.192</td>
<td>0.0001</td>
</tr>
<tr>
<td>FSZ</td>
<td>13.236</td>
<td>25.115</td>
<td>16.319</td>
<td>2.8355</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Source: Researchers compilation, using Stata 13

Table 1 presents the descriptive statistic for both dependent and the independent variables of the study. It shows that, ROA represents return on asset, MGO represent, managerial ownership, OWS represent ownership concentration; and FSZ representing firm size as a control variable.

From the result, it can be seen that, the minimum level of return on asset among oil and gas industry in Nigeria stood at 0.00006. This level of return on asset implies that there are companies with relatively very low return on asset among the oil and gas industry in Nigeria. This value ranges from a minimum of 0.00006 to a maximum of 0.0618. This implies that, firms with high return on asset perform better compare to those with lower return on asset among the sampled companies. The average return on asset stood at 0.0232 among the oil and gas industry in Nigeria.

The descriptive statistics result in table 1 shows that managerial ownership has an average mean value of 0.1672. This indicate that, about 17% of share in this sector are held by managers of these companies. This may significantly improve the performance of companies in this sector. This value ranges from a minimum of 0.0010 to a maximum of 1.1 among oil and gas companies in Nigeria. In addition to this, ownership concentration revealed an average value of 0.6895. This value ranges from a minimum of 0.14 to a maximum of 0.93. This shows a significant improve in the ownership concentration from minimum to a maximum level during the period among Nigeria oil and gas industry from 14% to 93% respectively.

Among the independent variables of the study, the firm size use as control variable has the highest standard deviation of 2.84 signifying its low contribution in explaining the performance of oil and gas industry in Nigeria. From the table 1, the Skewness values were used to test for normality of data of the study and they are all close to 0 and 1 which signifies that the data is normally distributed.

**Correlation Matrix**
Table 2 shows the correlation values between independent and dependent variables and among independent variables themselves. The values are gotten from the Person correlation of two-tailed significance. It shows the correlation matrix with the top values showing the Pearson correlation coefficient among all variables and the asterisk (*) beside the Person correlation coefficient showing the two-tailed significance of these coefficients.

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>MGO</th>
<th>OWC</th>
<th>FSZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGO</td>
<td>-0.1406</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OWC</td>
<td>0.0436</td>
<td>0.1119</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>FSZ</td>
<td>-0.2588</td>
<td>0.5221</td>
<td>-0.1686</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Researchers compilation, using Stata 13

A look at the pattern of the correlation among independent and dependent variables shows that with the exception of firm size use as control variable in the study which has a value of 0.5221, none of the explanatory variables is approaching 0.8 or greater.

Table 2 indicates that return on asset is 0.0436 positively correlated with the ownership concentration while managerial ownership and firm size are 0.1406 and 0.2588 negatively related with return on asset. While ownership concentration is 0.1119 negatively related with managerial ownership.

The relationship between the independent variables themselves was found to be significantly related with the exception of few that were found not to be significantly related, though, this may not be enough to conclude that harmful multicollinearity exist among the independent variables of the study until the variance inflation factor and the tolerance values are far and above the expected limit. The VIF and the tolerance are two advance measures of assessing multicollinearity between the regressors. The VIF and the tolerance are computed and are found to be consistently smaller than one and ten respectively, which clearly indicates absence of harmful multicollinearity. This shows the appropriateness and fitting of the study model with three independent variables and one control in ownership structure and performance of oil and gas industry in Nigeria.

4.2 Presentation and Interpretation of Regression Result

This section presents the result of the dependent variable and the independent variables of the study (managerial ownership, ownership concentration and firm size). The presentation follows with the analysis of the association between the dependent variable and each individual independent variable.

Robustness checks for multicollinearity and heteroskedasticity were first conducted on the data to ensure the reability and credability of the overall findings of the study. The result showed the absence of multicollinearity but heteroskedasticity was present. A FEM and REM were estimated after which the Hausman specification test was conducted to choose the most appropriate model for discussion between the two models. The Hausman test selected the GLS, consequently the Langrange Multilier was conducted and it showed no evidence of panel effect in the data (See Appendices attached). Therefore we settle for OLS as the best estimator over the GLS. However,
due to the evidence of heteroskedasticity, the robust OLS was used to estimate the hypothesized directions of the study.

The summary of the regression results obtained from the robust OLS model estimated for the study is presented in table 3 below:

Table 3 Summary of Regression Result

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>T-statistics</th>
<th>P-values</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.0236699</td>
<td>2.18</td>
<td>0.0.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGO</td>
<td>-0.001753</td>
<td>-1.89</td>
<td>0.063</td>
<td>0.773174</td>
<td>1.29</td>
</tr>
<tr>
<td>OWC</td>
<td>-0.001129</td>
<td>-0.16</td>
<td>0.871</td>
<td>0.883727</td>
<td>1.13</td>
</tr>
<tr>
<td>FSZ</td>
<td>0.0009202</td>
<td>-1.55</td>
<td>0.125</td>
<td>0.760536</td>
<td>1.31</td>
</tr>
<tr>
<td>R-Square</td>
<td></td>
<td></td>
<td></td>
<td>0.17</td>
<td></td>
</tr>
<tr>
<td>Adjusted R</td>
<td></td>
<td></td>
<td></td>
<td>0.12</td>
<td></td>
</tr>
<tr>
<td>F Statistics</td>
<td></td>
<td></td>
<td></td>
<td>3.37</td>
<td></td>
</tr>
<tr>
<td>Prob. (F. sig)</td>
<td></td>
<td></td>
<td></td>
<td>0.0144</td>
<td></td>
</tr>
</tbody>
</table>

Source: Regression result Output, 2016 using Stata 13

Table 3 show the summary of the estimated regression model which can mathematically be transformed as:

ROA=0.0236699 -0.00175(MGO) -0.001129(OWC) +0.0009202 (FSZ)

The regression result further substantiates the result in table 3 on correlation matrix which indicates absence of harmful multicollinearity. From table 3, the (VIF) are consistently less than 10 indicating complete absence of multicollinearity. In addition, the tolerance values are also consistently less than 1.00. From the regression result, the highest tolerance value and VIF are 0.94 and 1.31 respectively. This result shows that there is complete absence of harmful multicollinearity between the independent variables (Neter, Kutner, Nachtsheim&Wasserman, 1996; Tobachnick, &Fidell, 1996). This further provides evidence that harmful multicollinearity will not affect the inferences drawn from the results of this study.

The coefficient of determination represented by $R^2$ stood at 17% which constitutes the proportion of the variation in the dependent variable which is explained by the independent variable. Therefore, it signifies that 17% changes in financial performance of oil and gas companies are caused by the explanatory variables as used in the study, while the remaining 83% of the changes are caused by other factors outside the model of the study. The F- statistics which shows the overall level significance of the model is 3.37 showing the adequacy and fitness of the model of the study and is significant at 1% level.

4.3 Managerial Ownership and Performance

From the regression table above, the beta coefficient of managerial ownership is -0.001753 and its p-value is 0.063 (5%) which signifies that there is a negative significant impact between MGO and return on asset of quoted oil and gas industry in Nigeria. The implication of the above result is that, for every one unit increase in the managerial ownership there is an approximately 0.001753 naira decrease in return on asset of quoted oil and gas industry in Nigeria. However, the finding is in line with expectation of the researcher. The policy implication of this finding is that, the management of the oil and gas companies should formulate policies aim at reducing the number
of shares allocated to managers. This finding is in line with the findings of Sanda, Mikailu and Garba (2005), Faruk and Mailafia (2013), Saifullahi, Mohammed and Shehu (2015), Basyith, Fauzi and Idris (2015), Andow and David (2016) that found managerial ownership to be negatively and significantly affecting performance of firms and contrary to the findings of Adenikinju and Ayorinde (2001), Zakaria and Purhanudin (2014).

4.4 Ownership Concentration and Performance
From the regression table, ownership concentration has a beta coefficient of -0.001129 with a t-value of -0.16 which is insignificant at 87%. This signifies that, ownership concentration is negatively and insignificantly affecting the performance of listed oil and gas companies in Nigeria. However, the outcome is contrary to the prior expectation of the study that, as specific number of individuals hold a large portion of a company’s share, they would be able to influence the decision making in the company and they would influence the decisions of managers toward achieving the shareholders’ expectation/objective of wealth maximization and thereby increasing the performance of the firm in terms of profitability. This finding is contrary to the finding of Saifullahi, Mohammed and Shehu (2015) that found ownership concentration to be positive and significantly affecting the performance of conglomerate firms in Nigeria.

Table 4 Summary of Predictions of Findings

<table>
<thead>
<tr>
<th>Variable</th>
<th>Predictive Sign</th>
<th>Statistical Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managerial Ownership</td>
<td>-</td>
<td>Significant</td>
</tr>
<tr>
<td>Ownership Concentration</td>
<td>-</td>
<td>Insignificant</td>
</tr>
</tbody>
</table>

Source: Researcher’s findings

4.4 Hypotheses Testing
This sub section presents the data set which was estimated using a robust OLS inorder to test the hypotheses of the study. The regression result used for the hypotheses testing is presented in the table 3.

H0₁: Managerial ownership has no significant impact on return on asset of quoted oil and gas industry in Nigeria.

Managerial ownership was found to be significant and negatively impacting on return on asset at 5% level of significance indicating that, an increase in the number of share held by managers will lead to a decrease on the return on asset of oil and gas industry in Nigeria. In view of the above result reported in respect of Managerial ownership showing that the variable is statistically significant in influencing return on asset, this therefore proved an evidence of rejecting null hypothesis one of the study.

H0₂: Ownership concentration has no significant effect on return on asset of quoted oil and gas industry in Nigeria.

Ownership concentration was found to be statistically insignificant, which means that, the variable is not significantly associated with return on asset of oil and gas industry in Nigeria. Therefore Ownership concentration has not significantly affected return on asset. Owing to this, the study fails to reject null hypothesis two of the study. Thus hypothesis 2, H₀₂ is failed to be rejected.
5. Conclusions and Recommendations

The study has the following as its conclusions:

i. This study concludes that managerial ownership contributes negatively to the performance of listed oil and gas companies in Nigeria. Managers taking the majority part in the ownership of oil and gas companies will only result in causing drawbacks to the firms, thereby reducing the total profits. If Managers are given higher number of shares and they have the opportunity to participate in the control and decision taking of listed oil and gas firms, it is assumed that their value will be decreasing as time goes by as a result of their influence, this is because the managers may not focus on maximizing profit as the shareholder expectation but rather they may focus on their own personal interest.

ii. The study concludes from the regression result of this study that concentrated ownership has a negative insignificant impact on the financial performance of listed oil and gas companies in Nigeria. This study believes that if a particular portion of shareholders have the power to overrule the decision of all other shareholders and managers opinion i.e the opinion of the concentrated shareholders vote during decision making process is the ruling vote, the financial performance of listed oil and gas companies will invariably diminish in time to come.

In line with the conclusions of the study, the following recommendations have been proffered:

i. Managers should not be given the majority of shareholding in the ownership structure of the listed downstream oil and gas companies in Nigeria. But rather they should be given a small portion of the shareholding of the listed oil and gas companies in Nigeria, this will motive and encourage them to perform better in other to achieve the desired company goals and objectives as well as comply with the laid down guide lines of the companies which will increase their financial performance and their integrity.

ii. A particular group of individuals or companies should not be given the opportunity to hold the majority of the shareholding of listed downstream oil and gas companies in Nigeria. If in any way the ownership structure of listed oil and gas companies in Nigeria becomes one sided a lot of investors will have no option but to sell off their shares while prospective investors will not be convinced to come and invest their funds, this is because their opinions will never matter or make any difference since the ownership structure is one sided.

References


