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Evaluate the Impact of Discretionary Cash Flow from Operations on Value of Listed Oil and Gas Marketing Companies in Nigeria

By

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Abstract
Generally, investors invest for anticipated future returns, but those returns can rarely be predicted precisely as there will almost always be risk associated with investments. Actual or realized returns will almost always deviate from expected returns anticipated in the beginning of the investment period. The study aims to evaluate the impact of discretionary cash flow from operations on value of listed oil and gas marketing companies in Nigeria. The current study used secondary panel data techniques for data analysis and interpretations in order to fully capture the objectives. The population of this study is made up of the listed oil and gas firms in Nigeria. It shows the listed oil and gas firms in Nigeria as at the year 2022. The data was analysed using descriptive and inferential statistical tools. Panel Regression technique was used to determining the impact of the explanatory variables on the dependent variable. The study reveal that, estimated intercept is 1.1639 with a standard error of 0.8367. The t-statistic is 1.39, and the associated p-value (P>t) is 0.164, suggesting that the constant is not statistically different from zero. The coefficient for the variable CFO is 0.1817, with a standard error of 0.3220. The t-statistic is 0.56, and the p-value is 0.573. In line with the major findings of the study, the following conclusions and recommendation are drawn: Discretionary cash flow in the view of investors may not strongly react to variations, possibly due to differing expectations or the influence of other financial metrics. It is recommended to explore and understand the broader set of variables that influence firm value. Companies may focus on aligning discretionary cash flow decisions with operational efficiency goals, recognizing that while positive, the direct impact on market value may not be pronounced.

Keyword: Discretionary cash flow from operations, value of listed oil and gas marketing companies in Nigeria

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Introduction

Generally, investors invest for anticipated future returns, but those returns can rarely be predicted precisely as there will almost always be risk associated with investments. Actual or realized returns will almost always deviate from expected returns anticipated in the beginning of the investment period. It is assumed that investors will prefer investments with the highest expected return suitable to their risk aversion (Bodie & Marcus, 2008). A company's success however is often linked with the company's value creation, i.e., the ability of the company to generate future returns in terms of invested capital. The value of a firm is driven by earnings and growth, which in turn are rooted in the firm's business strategy, unique assets, management, and strategic market position, among other things (Koller, Goedhart & Sparrow, 2013).

Tobin's q ratio (Tobin & Brainard (1968); Tobin and Brainard (1977); Tobin (1969); and Tobin (1978) is extensively used in the financial literature as a proxy for future investment opportunities. The q ratio defined as the market value of a firm divided by the replacement cost of the firm's assets. Although the ratio, in its many variations, is a popular choice in empirical studies. The numerator of the ratio the market value of the firm depends on discounted expected future cash flows generated by the firm's assets. Since the denominator of the ratio is simply replacement cost of assets is expressed in present value terms, there exists an implied positive association between a firm's Tobin's q ratio and its future cash flows.

Cash flow management has become a critical element of many firms' operational strategies. According to Efobi (2008), cash flow management plays a major role in the company's operations and financial performance. Cash flow management is the nucleus of a business entity for short and long-term survival and concerned with both the short term and long-term financial objectives (Uwonda & Okello, 2013). A firm's cash flow management policies, which manage working capital in the form of cash receivables from customers, inventory holdings, and cash payments to suppliers, are widely linked to improved firm financial performance (Kroes & Subramanyam, 2012). Skousen (2009), defines: "Cash flow statement (statement of cash flow) is a financial report that reports the amount of cash received and paid by a company for a certain period". Sofyan (2010), argues that "Cash flow reports provide relevant information about cash receipts and expenditures of a company in a given period, by classifying transactions in activities: operations, funding and investment" (Jaworski and Czerwonka 2016). Cash flows from operations are measured as cash flows from operations divided by lagged total assets as used by (Olatunji, 2020).

Methodology

The current study used secondary panel data techniques for data analysis and interpretations in order to fully capture the objectives. The population of this study is made up of the listed oil and gas firms in Nigeria. It shows the listed oil and gas firms in Nigeria as at the year 2022. The data was analysed using descriptive and inferential statistical tools. Panel Regression technique was used to determining the impact of the explanatory variables on the dependent variable. The relationship is expressed as an equation that predicts a response of variable from a function of regress or and parameters. For the purpose of this study fixed effect, random effect and pooled OLS was used. Hausman test was carried out to choose the most appropriate technique among the models. The justification of using these techniques is that the data of this study contained i and t dimension i.e., time and individuals' companies.

Result and Discussion

Descriptive Statistics Result

Table1: provides summary of statistics for the variables of the study. The summary statistics include measures of central tendency, such as mean, measures of dispersion (the spread of the distribution) such as the standard deviation, minimum and maximum of both the dependent variable and explanatory variables. The table shows the summary statistics of the dependent and independent variables in order to effectively appreciate the nature of the results.

Table 1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
TOBIN'S Q	88	0.7339	0.4897	0.1325	3.3742
CFO	88	0.0670	0.1613	-0.5024	0.4807
FSIZE	88	7.8600	0.5832	6.9475	11.0382
LEV	88	0.1954	0.1632	0	0.8132

Source: Computed by the researcher using STATA 14

The table shows that the mean value of Tobin's Q is 0.7339, standard deviation of 0.4897 and minimum and maximum values of 0.1325 and 3.3742 respectively. This suggests that the on average the market values the firm's assets down due to the value not exceeding one. However, the maximum indicated that there is a firm with high value within the period of the study. The standard deviation of Tobin's Q suggests that there is a significant amount of variation from the mean across the firms in the sample. The minimum and maximum values of Tobin's Q suggests that there are some firms in the sample that have very high Tobin's Qs and/or engage in real earnings management to a significant extent.

CFO has a mean value of 0.0670, standard deviation of 0.1613, and minimum and maximum values of -0.5024 and 0.4807 respectively. Cash flow from operations is a measure of the cash generated by the firm's operating activities. A high level of cash flow from operations could indicate that a firm is financially healthy and able to meet its obligations, which would lead to a higher firm value. The average value of CFO indicates that the oil and gas firms within the period covered in the study were not financially healthy to meet their obligations, which signifies a lower firm value.

Firm size is a measure of the firm's total assets. The table shows that on average 7.8600, standard deviation of 0.5832, minimum and maximum of 6.9475 and 11.0382 respectively. Larger firms are generally more stable and less risky than smaller firms, which could lead to a higher firm value. Leverage is a measure of the firm's debt-to-equity ratio. The table shows that it has a mean value of 0.1954, standard deviation of 0.1632, minimum and maximum values of 0 and 0.8132 respectively. High levels of leverage can increase the risk of bankruptcy, which could lead to a lower firm value. According to the average value of leverage, the firms have lower leverage and may not likely engage in real earnings management.

Correlation Analysis

The correlation matrix shows the correlation coefficients between the four variables in the table. The correlation coefficient is a measure of the linear relationship between two variables. It can range from -1 to 1, with a value of -1 indicating a perfect negative correlation, a value of 1 indicating a perfect positive correlation, and a value of 0 indicating no correlation.

Table 2: Correlation Matrix

VARIABLE	TOBINSQ	DEX	PROD	CFO	FSIZE	LEV	VIF
TOBIN'S Q	1.0000						
CFO	0.0791	0.0674	0.0982	1.0000			1.12
FSIZE	0.0693	0.0200	-0.0451	-0.1719	1.0000		1.17
LEV	0.0686	0.0495	0.0842	-0.2808	0.3652	1.0000	1.26

Source: Computed by the researcher using STATA 14

It also shows that correlation coefficient: 0.0791 indicates a positive correlation between TOBIN'S Q and CFO, but the correlation is weak. This means as the CFO increases firm value also increases.

The table further shows that there are a number of other interesting relationships between the variables. For example, firm size (FSIZE) is positively correlated with firm value (Tobin's Q), with a correlation coefficient of 0.0693. This suggests that larger firms tend to have higher firm values. This is likely due to the fact that larger firms are generally more stable and less risky than smaller firms. It also shows that cash flow from operations (CFO) is positively correlated with firm value (Tobin's Q), with a correlation coefficient of 0.0791. This suggests that firms that generate more cash from operations tend to have higher firm values. This is likely due to the fact that cash flow from operations is a measure of a firm's ability to generate cash, which is essential for meeting debt obligations and investing in growth. It also shows that leverage (LEV) is positively correlated with firm value (Tobin's Q), with a correlation coefficient of 0.0686. This suggests that firms with higher levels of debt tend to have lower firm values. This is likely due to the fact that leverage increases the risk of bankruptcy, which can make firms less attractive to investors.

Panel Regression

The table presents the result of the analysis on the impact of discretionary cash flow as proxy to real earnings management on firm value of listed oil and gas firms in Nigeria. According to the Hausman specification test, Random Effect (RE) model is the appropriate to present.

Table 3: Random Effect Model

Tobin's Q	Coef.		Std. Err.	z	P>|z|
Constant		1.1639	0.8367	1.39	0.164
CFO		0.1817	0.3220	0.56	0.573
FSIZE		-0.0722	0.1077	-0.67	0.502
LEV		0.6419	0.3481	1.84	0.065
Prob > F	0.3088				
R – squared within	0.0655				
Between	0.3680				
Overall	0.0048				
Hausman	0.1106				
LM test	0.0001				
Wald chi2 (3)	3.59				

Source: Computed by the researcher using STATA 14

Table 3 shows that estimated intercept is 1.1639 with a standard error of 0.8367. The t-statistic is 1.39, and the associated p-value (P>t) is 0.164, suggesting that the constant is not statistically different from zero. The coefficient for the variable CFO is 0.1817, with a standard error of 0.3220. The t-statistic is 0.56, and the p-value is 0.573. This suggests that the variable CFO is statistically insignificant at conventional significance levels (e.g., 0.05). The positive coefficient indicates that as CFO increases by one unit, the firm value represented by Tobin's Q increases by approximately 0.1817 units. The coefficient for the variable FSIZE is -0.0722, with a standard error of 0.1077. The t-statistic is -0.67, and the p-value is 0.502. The variable FSIZE is not statistically significant at a conventional significance level of 0.05. The coefficient for the variable LEV is 0.6419, with a standard error of 0.3481. The t-statistic is 1.84, and the p-value is 0.065. The variable LEV is statistically insignificant at a conventional significance level of 0.05. The table also shows the model fitness where p-value associated with the F-statistic for overall model fit is 0.3088, indicating that the overall model is statistically insignificant. The R-squared value of within, between and overall 0.0655, 0.3680 and 0.0048 respectively represent the proportion of variance in the dependent variable (Tobin's Q) explained by the independent variables in the model. The R-square between had further confirmed coefficient determination of 0.3680 indicating that the independent variable impacted on the dependent variable at 37% holding other variables constant and 63% was captured by the residuals. Tests for assumptions and model specification include Hausman test which shows the p-value associated with the Hausman test is 0.1106, suggesting that there is a statistically significant difference between the fixed effects and random effects models where it led to the Lagrange Multiplier Effect test. The LM test (0.0001) further indicates that Random Effect Model is the appropriate to present.

Conclusions and recommendation

In line with the major findings of the study, the following conclusions and recommendation are drawn: Discretionary cash flow in the view of investors may not strongly react to variations, possibly due to differing expectations or the influence of other financial metrics. The study also concludes that CFO decisions with operational efficiency goals and

consideration leads to comprehensive set of determinants influencing firm value in the oil and gas sector.

Based on the conclusions of the study, here are some recommendations for investors, managers, and policymakers: Companies should take a holistic view when assessing determinants of firm value in the oil and gas sector. It is recommended to explore and understand the broader set of variables that influence firm value. Companies may focus on aligning discretionary cash flow decisions with operational efficiency goals, recognizing that while positive, the direct impact on market value may not be pronounced.

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