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Asset Structure And Financial Performance Of Listed Oil And Gas Marketing Firms In Nigeria

ETOKO Martins E. (PhD) [1] & IGISI Isaac T. (PhD)[2]

[1]Department of Accounting,
University of Africa Toru-Orua Bayelsa State, Nigeria.
Email: martins.etoko@uat.edu.ng

[2]Department of Accounting,
Ignatius Ajuru University of Education,
Rumuolumeni, Port Harcourt, Rivers State, Nigeria
Email: isaacigisi6@gmail.com

ABSTRACT
The study investigated asset structure and financial performance of listed oil and gas marketing firms in Nigeria within 2014 and 2023. It seeks to ascertain the relationship that exists between asset structure and financial performance in the industry. Asset structure was represented by current asset to noncurrent asset (CA/NCA) ratio while financial performance was measured in terms of return on equity (ROE) and return on capital employed (ROCE). The study adopts the descriptive correlational research design. A sample of 5 firms was drawn from the population of 8 listed firms in the industry to conduct the study. The investigation employed descriptive statistics, inferential statistics, Durbin-Watson test and regression testing to analyse the data obtained from annual report and account of the sampled firms. Statistical test results showed that insignificant relationship exists between current asset to noncurrent asset (CA/NCA) ratio and return on equity (ROE), and that insignificant relationship exists between CA/NCA ratio and return on capital employed (ROCE). The study concludes that asset structure has insignificant relationship with financial performance of listed oil and gas marketing firms in Nigeria within the study period. The findings are useful to business managers hence it recommends that managers should use good judgement when considering the proportion of limited resources to invest in each group of assets.
Keywords: Asset Structure, Current Asset, Noncurrent Asset Ratio, Financial Performance, Return, Equity, Return, Capital Employed.

INTRODUCTION

Business entities are formed and operated with a view to increase equity shareholders' wealth. Where the market price per share of a firm increases above the nominal value over time, then ordinary shareholders' wealth is said to have increased. Equity shareholders wealth and the long term debt provides the bulk of capital used by firms in their operations. The bulk of fund available is usually invested in resources that are controlled by it and from which economic benefits are anticipated to flow into the business. These resources are referred to as the asset and they appear as a group in the statement of financial position of a firm.

Assets owned and utilized by a firm can be grouped in two categories; non-current assets and current assets. Non-current assets has a longer useful life span usually more than an accounting year. Annually,

by way of depreciation, amortization or depletion, a certain amount arrived at is taken as cost of the non-current asset consumed in the course of generating the income during the period. Current assets has shorter life span compared to the first group. It takes within an accounting period of twelve months between when they are purchased and utilized. A company's demand and production schedule of its product determines the frequency of the changes in current assets volume. Both groups of asset perform critical role in the actualization of the primary objective of the firm, that of equity shareholders wealth maximization. Managers of firms need to judiciously invest appropriate proportion of available fund on each category of assets (Walker, 2014).

How much a firm equity shareholder's wealth as increased overtime is often evidenced from its annual financial statements published from time to time. Financial statements reveals the firm's financial results from the use of productive resources at its disposal. Usually a business financial performance can be judge through financial ratios such as gross profit margin, net profit margin, return on capital employed, return on net asset and earning per share. The choice of performance indicator to employ depends on the valuer's interest when analyzing general purpose financial statements.

Current assets and non-current assets are crucial for increasing ordinary shareholders wealth. Empirical investigations in the field of accounting and finance have focused much more on one side of the statement of financial position. Abundance of studies on capital structure that is; the finance mix of a firm exits in extant literature. However, this is not the case with asset structure, the asset mix of the firm. The assets are the direct representation of the capital and liabilities in the statement of financial position. Yet this side of the statement has not been intensively researched. It seems that the composition of asset of a firm does not have bearing on it financial performance as it is neglected. As cited in Andow and Yahaya (2022), Lindbergh (2013) recommends the analysis of both sides of the statement of financial position when seeking to develop a pattern in the use of asset and its financing. Business managers need to be aware of the relationship that possibly exist between current asset to no-current asset ratio and financial performance, as such knowledge could be utilized to ensure the survival of the business entities.

The dearth of empirical works on the relationship between the asset structure and financial performance has prompted the conduct of this investigation on listed oil and gas marketing firms in Nigeria. Precisely, the investigation aim to statistically ascertain the relationship between asset structure measured as current asset to non-current asset ratio and financial performance; indicated by return on capital employed and return on net asset.

LITERATURE REVIEW

Conceptual Review

Asset Structure

The word "structure" in literal English language can refer to the manner in which objects or elements in a system are carefully arranged or organized (Cambridge, 2015). In finance and accounting literatures, two structures are often presented in publish annual statement of financial position. They are ownership structure and asset structure. Ownership structure often referred to capital structure is the combination of the various sources funds that comprise a firm's capital. This comprises of equity capital and its components and the long term debts. It is the finance mix. Asset structure on the other hand refers to the arrangement of the various groups of asset owned and used by the firm to generate income during the period. International Accounting Standard (IAS) 1 (Presentation of Financial Statement) classified asset as current or non-current assets. In the context of this study asset structure is used to mean the proportion of a firm's investment in current asset in relation to its investment in non-current asset. The resource available and obtainable by business to finance operation are not limitless. Since a firm requires both classes of assets, the financial manager has to determine the optimal level of investment in current asset so as to maximize ordinary shareholders wealth (Pandey, 2021).

Financial Performance

A company financial performance can be said to the outcome, results or achievements during a financial year through application economic resources in business activities. It is the output of a firm from its input measured in monetary term. Profitability is the key indicator of a firm's financial performance. However,

profit figures does not give accurate picture of the period, except when these figures are explained in association with other variables necessary for the profit generated. Furthermore it important to analyse the trend of profit generated over time. Literature on finance and accounting shows that various profitability ratios have been tried to explain a firm's financial performance. These include gross profit margin ratio, net profit margin ratio, return on capital employed, return on equity, asset turnover and a whole other ratios. Similarly researchers have developed and used different models to explain a firm's financial performance yet, there is no one model that is considered most appropriate (Shi, 2021).

Return on capital employed (ROCE) shows the overall profitability of a business. It indicates the efficiency in asset utilization in relation to the profit for the period. Oluwe (2017) asserted that there are variations in the computation of ROCE, but the use of profit before interest and tax as numerator and total capital as denominator is more superior to other formulas. Abdullahi (2014) posited that the choice of variable to be used depends on the individual analyst's interest and that where owners' equity is to be used as the denominator, the profit figure should be profit after interest and tax. However, if ordinary share capital and long term debt constitutes the capital, then the profit before interest and tax should be used in the computation of ROCE. The former relates to return on equity (ROE). Both ratios are employed in this study.

Current asset to non-current asset ratio is a measure of the level of short term asset that a firm need to keep-up with a specific output level (Van Horne, 2015). Three levels of the ratio have emerged; the conservative level, aggressive level and moderate level. These levels are referred to as current asset policies. When the ratio between the categories of asset is high the firm in said to adopt a conservative current asset policy. At this rate, there is lower risk of not meeting short financial obligation as they fall due. Where the ratio is low the company operates aggressive current asset policy. Low rate indicates that it has higher risk of not been able to meet short term financial obligations as they fall due. In between lies the moderate current asset policy. At this point the company bears appropriate liquidity risk. Current asset policy as Pandey stated anchored on the assumption that noncurrent asset level is constant within the level of operation. Practically non-current asset level changes from time to time as observed in annual reports and accounts of firms. Hence this research focused on current asset to non-current asset ratio without consideration of whether it is aggressive, moderate or conservative.

Empirical Review

Empirical investigations on the relationship between capital structure and firm financial performance abound in extant literature unlike asset structure. Studies that focused on ownership structure have used different indicators for ownership (capital) structure and for performance.

For instance Olaoye and Adesina (2022), studied the relationship of these variables in Nigeria using a sample of ten firms and data spanning between 2009 and 2020. Statistical test result showed that debt to equity ratio had significant relationship with ROE while debt total asset, short term debt to total assets and long-term debt to total asset ratio has insignificant relationship with financial performance.

Shrestha (2023), investigated the impact of capital structure on profitability in Nipal from 2013 – 2022, using ROA on the measure of profitability and debt to equity, debt to capital, equity to total assets, short-term debt to total asset ratios. The Pearson's correlation result showed that on the overall, capital structure of a firm has insignificant relationship with the performance measure.

Olaniyi et al (2022), tested the relationship that exists between capital structure and financial performance in Nigeria using time series data that spans between 2005 and 2020. They found that equity capital, total debt and long term debt individually has positive and significant relationship with ROA and ROE. But short-term debt has insignificant positive relationship with financial performance measures.

Oyedukon et al (2018), used a sample of 10 manufacturing firm and data that span between 2007 and 2016 to investigate the relationship between capital structure and financial performance in Nigeria. They employed return of assets, earning per share, dividend per share and market price per share as measures of financial performance, while the log of total debt and the log of equity were used as measure of capital structure. The study found that the log of equity has insignificant relationship with ROA and market price

per share; while it has significant relationship with EPS and DPS. Insignificant relationship was observed between the log of total debt and EPS; DPS, and MPS; whereas, it has significant relationship with ROA.

Al-Mawsheki (2022) conducted a study on the effect of working capital policy on financial performances of manufacturing firms in Malaysia between 2010 and 2017 using a sample of 147 firms. The outcome of statistical test was that current asset to total asset ratio has negative and significant effect on financial performance of the observed firms.

From the literatures reviewed, it is obvious that the attention of scholars have been drawn much more on the finance structure, neglecting the issue of asset structure. Without adequate empirical testing on the implication of asset structure on financial performance of firm; by scholars, theories on the asset composition cannot emerge. Managers of firms would as well lack detail knowledge on the optimum composition of asset that world increase equity investor's wealth. This study was conducted to ascertain the statistical relationship between current asset to noncurrent asset ratio and return on capital employed, and return on equity in oil and gas firms with a view to contribute in theoretical formulation on the subject and also provide practical knowledge that would guide managers in business decision making around the topic.

METHODOLOGY

Design: The study adopted descriptive correlational research design to investigate the relationship that exits between asset structure and financial performance of listed oil and gas marketing firms in Nigeria. It used ex-post facto data. Asset structure independent variable was proxied by current asset to noncurrent asset ratio (CNR) while financial performance the dependent variable, measured in term of return on capital employed (ROCE) and return on equity (ROE). Specifically the study examine the relationship between the proxy of the independent variable and the measure of the dependent variable.

Sample: A sample size of 5 oil and gas marketing firms in Nigeria was purposively selected for the investigation. This represents about 60% of the entire population. Information gathered from Nigeria Exchange Group (NGX) website shows that as at the terminal date of the study period, 9 such firms were listed. However one of the firms was in the process of liquidation. Thus the eight firms constituted the study population. The findings from the sample was used to make generalizations on the industry.

Nature and Source of Data: Secondary data was used to conduct the investigation; and it spans between 2014 and 2022. Annual report and accounts of the sampled firms provided the necessary data from which the variables of the study were computed. Data was collected via the official website of the respective sampled firms and from Nigeria Exchange Group website. Fact presented in the financial statements are considered reliable since they are independently audited by professional auditors and published statements.

Measurement of Variables

$$Current\ Assest\ to\ Noncureent\ Asset\ Ratio\left(\frac{CA}{NCA}\right) = \frac{Average\ Current\ Asset}{Average\ Noncurrent\ Asset} \times 100$$

$$Return\ on\ Equity\ (ROE) = \frac{Profit\ after\ Interest\ and\ Tax}{Net\ Asset} \times 100$$

$$Return\ on\ Capital\ Employed\ (ROCE) = \frac{Profit\ before\ Interst\ and\ Tax}{Total\ Asset} \times 100$$

Profit before interest and tax was obtained by adding back finance cost to the profit before tax. Average current assets and average noncurrent assets were arrived at by adding the opening and closing current assets and noncurrent asset and dividing the sums by 2. Average values were employed since the income generated was the contributory effort of the asset at both points of the financial year.

Method of Analysis: Data obtained was analysed using descriptive and inferential statistics. Descriptive statistics was used to describe the data on CNR, ROA, and ROE in terms of mean, maximum, total, kurtosis and skewness values. The study further described the variables in terms of stationarity of the data using the Augmented Dickey-Fuller test statistic. Regression testing was conducted on the data to ascertain the relationship that exists between the measure of the dependent variable and the measure of the independent variable.

Statistical Test Results

Descriptive Statistics

Table 1: Descriptive Statistics of the Proxy and Measures of the Study

	CA_NCA	ROCE	ROE
Mean	3.658378	0.049189	-0.014595
Maximum	14.48000	0.130000	0.570000
Minimum	0.240000	-0.040000	-3.620000
Std. Dev.	3.745598	0.044245	0.619084
Skewness	1.407588	-0.327574	-5.530872
Kurtosis	3.754632	2.425418	32.86581
Sum	135.3600	1.820000	-0.540000
Observations	37	37	37

Source: E-View (2023) Output

Table one (1) presents the descriptive statistics of current asset to no current asset ratio (CA/NCA), return on capital employed (ROCE), and return on equity (ROE) of listed oil and gas marketing firms in Nigeria within the study period.

The table indicates that CA/NCA has a mean value of 3.67 and a total of 135.36. The average figure shows that listed oil and gas marketing firms in Nigeria used more of current asset than noncurrent asset in carrying out their business operations. The ratio of 3.67 revealed that current asset is approximately 3.7 times of noncurrent asset used annually. The minimum and maximum values of the ratio during the study period were 0.24 and 14.48 respectively. The skewness and kurtosis statistics which shows the normal distribution of the data set were 1.41 and 3.76 respectively.

From the 37 observations made, ROCE has a mean value of about 0.05 (5 kobo) and with a total of #1.82 during the period. The table shows that the industry made minimum loss of 4 Kobo per capital employed and a maximum ROCE of 13 kobo. The variable had skewness and kurtosis values of -0.33 and 2.43 respectively.

As shown in the table, return on equity (ROE) during the study period amounted to loss of 2 Kobo per equity invested. In summation, the variable had a loss of 54 kobo. The lowest return during the period under review was a loss #3.62 while 57 kobo was recorded as the highest return for ROE. The data set had skewness and kurtosis value of -5.53 and 32.87 respectively.

Unit Root Test

Table 2: Augmented Dickey-Fuller test statistic

Null Hypothesis: D(LNCA_NCA) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNCA_NCA(-1))	-1.136693	0.172163	-6.602425	0.0000
C	-0.073599	0.462279	-0.159210	0.8745

Source: E-View (2023) Output

Table 3: Augmented Dickey-Fuller test statistic

Null Hypothesis: D(LNROE) has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=9)

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
D(LNROE(-1))	-2.021923	0.291012	-6.947899	0.0000
D(LNROE(-1),2)	0.344814	0.167825	2.054597	0.0484
C	-0.018524	0.132996	-0.139281	0.8901

Source: E-View (2023) Output

Table 4: Augmented Dickey-Fuller test statistic

Null Hypothesis: D(LNROCE) has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=9)

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
D(LNROCE(-1))	-1.802227	0.252679	-7.132489	0.0000
D(LNROCE(-1),2)	0.469551	0.164533	2.853843	0.0076
C	-0.001109	0.008125	-0.136522	0.8923

Source: E-View (2023) Output

Table 2, 3 and 4 displays the results of the unit root test on the time series data used for the study. The Augmented Dickey-Fuller test statistics was conducted on each of the variables to determine the presence of unit root in the data. The p-value obtained in each case was less than the significant level of 0.05. Thus the null hypothesis stated in each case is rejected. The results point to the fact that further statistical test result emanating from the data set is not spurious regression.

The Durbin Watson stat of 2.04, 2.2, and 2.2 for CA/NCA, ROCE and ROE respectively further gives the data set credibility. It indicates that the time series data does not possess autocorrelation characteristics in each case.

Regression Result

Hypothesis 1: There is no significant relationship between current asset to noncurrent asset (CA/NCA) ratio and return on equity (ROE) of listed oil and gas marketing firms in Nigeria.

Table 5: Regression result of (CA/NCA) ratio and return on equity (ROE)

Dependent Variable: LNROE
Method: Least Squares
Date: 04/11/24 Time: 17:49
Sample: 1 37
Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CA_NCA	0.060368	0.033564	1.798609	0.0829
C	-2.678416	0.191438	-13.99102	0.0000

R-squared	0.503570	Mean dependent var	-2.430223
Adjusted R-squared	0.501554	S.D. dependent var	0.754266
S.E. of regression	0.726780	Durbin-Watson stat	1.801420
Sum squared resid	14.78986		

Source: E-View (2023) Output

Table 5 shows the regression test result of CA/NCA and ROE of listed oil and gas marketing firms in Nigeria. The R-Square of 0.503570 implies that about 50 percent of variation in the dependent variable ROE is explainable by changes in the independent variable CA/NCA. The p-value of the regression is 0.0829. This value is greater than the significant level of 0.05. Thus the study accepts the null hypothesis that there is no significant relationship between the variables.

Hypothesis 2: There is no significant relationship between current asset to noncurrent asset (CA/NCA) ratio and return on capital employed (ROCE) of listed oil and gas marketing firms in Nigeria.

Table 6: Regression Result of CA/NCA and ROCE

Dependent Variable: LNROCE
Method: Least Squares
Date: 04/11/24 Time: 17:51
Sample: 1 37
Included observations: 29

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CA_NCA	0.044862	0.023002	1.950317	0.0616
C	-2.982249	0.133313	-22.37034	0.0000

R-squared	0.523483	Mean dependent var	-2.793627
Adjusted R-squared	0.501019	S.D. dependent var	0.518257
S.E. of regression	0.494109	Durbin-Watson stat	2.006490
Sum squared resid	6.591882		

Source: E-View (2023) Output

Table 6 display the regression result of CA/NCA and ROCE of listed oil and gas marketing firms in Nigeria. The result gives a R-Square of 0.5235 indicating the fitness of the model. The figure implies that about 52 percent of variation in the dependent variable is explainable by changes in the independent variable. The table showed a regression coefficient of 0.0616 which is greater than the significant level of 0.05. Hence the study accepts the null hypothesis stated above.

DISCUSSION OF FINDINGS

The statistical test on hypothesis one (1) indicates that no significant relationship exists between current asset to noncurrent asset ratio and return on equity in the industry during the study period. Similarly, the test result of hypothesis two (2) showed that no significant relationship exists between the ratio of current asset to noncurrent asset and return on capital employed in the industry during the study period.

It therefore reveal that asset structure which is the proportion of current asset to the noncurrent asset used in an accounting period in the oil and gas industry in Nigeria does not have significant relationship with financial performance. This finding is consistent with the finding of Enekwe et al (2023). In their study they found that noncurrent has insignificant relationship with financial performance of manufacturing firms in Nigeria. The present study observed a positive but insignificant ties between the variables.

There is the need to conduct further examination of the relationship between asset structure and firms financial performance since there is inadequate empirical studies on the topic to substantiate the findings. Asset structure should be conceptualised as the proportion of current asset to noncurrent asset as against the capital structure of the firm.

Practically, since asset structure as insignificant ties with financial performance, it is a matter of the nature of the business that would determine the level of investment in either category of assets. Managers should therefore consider the trade-off point when making decisions that borthers on asset structure of the firm taking cognisance of the primary objective of the firm.

CONCLUSION

The study of assets structure and financial performance of listed oil and gas marketing firms in Nigeria was carried out to investigate the relationship that exists between the variables using current asset to noncurrent asset ratio as proxy of asset structure and return on equity, and return on capital employed as measures of financial performance. It adopted the descriptive correlational research design in the study and gathered secondary data from five firms in the industry. The data span between 2014 and 2023 accounting years. Descriptive statistics and inferential statistics were employed to analyse the data sourced from the annual report and account of the respective firms. Based on test results the study concludes that there exists insignificant relationship between asset structure and firm financial performance of oil and gas marketing firms in Nigeria within the study period. It thus recommends that managers of firms should take into consideration of the nature of firm's operation in making decisions about the level of investment in each group of assets. The study also recommends that further studies be carried out on the topic as there is insufficiency of empirical evidence.

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