

# EVALUATION OF THE RELATIONSHIPS BETWEEN FINANCIAL RATIOS AND SHARE PRICE MOVEMENTS IN NIGERIA OIL AND GAS (2002 – 2014)

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**Abstract**— The aim of this study is to examine the relationships between financial ratios and share price movements in Nigeria oil and gas sector. A sample of four oil and gas companies listed in the Nigeria Stock Exchange from 2002 to 2014 was used. These companies comprise of Oando Plc, Mobil Oil Nigeria Plc, MRS Nigeria Oil and Conoil Plc. Cross-sectional correlation analysis was used to establish the relationship. Share price is the dependent variable while the financial ratios such as Earnings per share (EPS), Dividend per share (DPS), Net asset value per share (NAVPS) and Dividend cover (DCO) were the independent variables. The findings showed that there was a weak and insignificant relationship between financial ratios and share movements of the selected oil and gas sector quoted at the Nigerian Stock Exchange (NSE). The study equally revealed that Net Asset value per share has strong and positive significant relationship with Share Price Movements in Nigeria Oil and Gas sector; not minding that the other ratios claimed otherwise. The result is not in line with a priori expectation because of the peculiar nature of the Nigeria Oil and Gas sector. Price is not determined by the forces of demand and supply which is contrary to a crucial economic principle. The heavy government presence in the sector makes it impossible for Oil firms to determine the price of the product based on considerations of production cost and margin of safety. The removal of these bottlenecks is crucial by complete deregulation and removal of subsidy as this will usher in an era of competitive pricing, local refining and very reduced government presence in the all important oil sector.

**Index Terms**— Financial Ratios; Regression, Correlation; Share Price; Oil and Gas

## I. INTRODUCTION

It is worth noting that investors, be they institutional or individual, hold one common objective when they invest in the share market; they all hope to maximize expected returns at some preferred level of risk. For investment in common stocks, much is said to have caused the changes or movements in share

prices. These create great concerns to investors and others such as stockbrokers, fund managers and investment analysts. Due to worldwide changes in share price in recent years, studies on share price determination have received increasing attention.

Inyama (2014), quoting Aldin, Dehnav and Entezari (2012) opine that, stock price movements are likely to be influenced by many macroeconomic factors including political events, firms' guidelines, general economic situations, inventory price index, investors' expectations, institutional investors' selections and psychological factors. Citing Wang, Zhang and Guo (2011), the scholar concludes that the accurate prediction of stock price movements is a very challenging and important issue which the investors extensively regard in their investment decisions. Some of these factors which pivot around the forces of demand and supply may also determine whether a stock market is bearish or bullish.

**The most important function of financial reporting is helping investors make investment decisions as regards the financial position of a company. Analysis of financial statements and the computation of financial ratios are versatile tools in the hands of policy makers which are used for the measurement of financial performance.** Hence, financial ratios analysis is regarded as the powerful tool of financial analysis because ratios are used as a yard-stick for evaluating the financial position and performance of an organization. Ratios serve as tools for detecting irregularities in the managerial cadre and provide a barometer for measuring a firm's fortune (Omoregie, Adeparubi, and Iboi, 2014).

Oil is a major source of energy in Nigeria and the world at large. Over the years, oil has become the mainstay in the Nigerian economy at the expense of agriculture even though Nigeria suffered 'Dutch disease' due to oil exploration (Sulaiman, 2012). The oil and gas industry began to play a

prominent role in the nation at the end of the Nigerian civil war. The industry occupies a very strategic position in the Nigerian economy as the nation's major provider of public revenue. Over 85 percent of Nigeria foreign reserve is earned from this industry. It consists of participants in the upstream and downstream sectors. These participants implement strategies to remain competitive and increase its profitability.

Mukherjee and Naka (1995) argue that market forces such as demand and supply affect stock price movements. Any change in demand and supply, both of which can change at different rates causes fluctuation in share prices. If demand for a stock rises, its price tends to rise. An increase in supply depresses the stock price. Demand and supply are however related to other factors. Investment returns or company profitability is another potential factor. This factor is however dependent on profitability as there is no company that can pay good investment returns in terms of dividends and/or bonus issues to its share holders without a solid profitability report.

However no company is by law compelled to declare dividends. It is only when such company makes profit that it can declare dividend and/or bonus issues. An impressive investment returns will attract more investors to the company; in other words, if returns on investment are attractive, there will be high demand for its stock and the price moves up. The reverse is the case when a company's investment returns is unattractive. Ordinarily, if a company is performing well in the area of profitability, investors will be interested to invest in such company and this will influence the share price of the company. On the other hand, a poor profitability will not attract investors as they will not like to put their monies at risk. In essence, impressive profitability of a company leads to increase in demand of the company's shares and subsequently increase in its share price

Apart from specific company characteristics, other external factors such as government rules and regulations, inflation, exchange rate, money supply, growth in gross domestic product and other economic conditions, investor behavior, market conditions, competition, uncontrolled natural or environmental circumstances directly affecting the production of the company, behavior of market participants, strikes, and so on, could be very important influencing factors in determining stock price movements. It is really sad to note that, in the accounting and finance sector, companies cook figures and manipulate financial statements; tax avoidance is the norm of the day while persistent earnings management is left unchecked by the authorities because of weak and ineffective regulation. Also, firm's earnings and businesses are influenced by general economic conditions, the performance of the financial markets, changes in laws, regulations and policies of the Central Bank, capital market and other regulators as well as competitive factors on a global, federal, state and local government basis. Worst still, the investors who look up to the auditors for their presentation of true and fair views in the financial statements of the firms which they have invested

heavily and expecting dividends in return turns out to be so disappointed at the end of the day. How, because auditors have often presented false figures in the annual financial statements, making them believe that the firms they invested in are viable. In the real sense the figures are fake they do not represent the true picture of the firm's position, all because the rules that guide the independency of auditors did not spell out that auditors should investigate the accounts given to them for auditing, firms are winding up on daily basis.

These problems coupled with many issues, necessitated the reason for this study. In this study, the researcher aims at evaluating the relationship between the financial ratios and share price movements in Nigeria oil and gas. The specific objectives of the study are set up as follows:

- a. To investigate the relationship between Earnings per share and share price movements in Nigeria oil and gas industry.
- b. To examine the relationship between net asset per share and share price movements in Nigeria oil and gas sector.
- c. To assess the relationship between dividend per share and share price changes in Nigeria oil and gas.
- d. To ascertain the level of association between dividend cover and share price movements in Nigeria oil and gas sector.

The following research questions were developed from the objectives of this study. These are as follows:

- a) What is the extent of the relationship between earnings per share and share price movement in the Nigeria oil and gas industry?
- b) What is the extent of the relationship between net asset value per share and share price movements in Nigeria oil and gas sector?
- c) To what extent is dividend per share related to share price movements in Nigeria oil and gas sector?
- d) To what extent is dividend cover related to share price movements in Nigeria oil and gas industry?

The researcher went further to formulate null hypotheses as seen below:

- a)  $H_0$ : There is no significant relationship between earnings per share and share price movements in Nigerian oil and gas sector.
- b)  $H_0$ : Net asset value per share has no significant relationships with share price movements in Nigerian oil and gas industry.
- c)  $H_0$ : Dividend per share has no significant relationship with share price movements in Nigeria oil and gas industry.
- d)  $H_0$ : Dividend cover has no significant relationship with share price movements in Nigeria oil and gas industry.

This paper therefore seeks to examine the extent to which financial ratios such as earnings per share, dividend per share, net asset value per share and dividend cover relate with share price movements in Nigeria oil and gas sector. The rest of this work is divided into four sections. Section 2 deals with the review of related literature, Section 3 focuses on the methodology for data analysis while section 4 presents the empirical results and discussion of findings. Section 5 however concludes the study.

## II. REVIEW OF RELATED LITERATURE

### A. Theoretical Framework

Inyama and Nwoha (2014), in the research into "Macroeconomic Variables and Share Price Movements in Nigeria Breweries Plc" stated that many divergent views trail the issue of stock price determination and the factors responsible. The proponents of efficient market hypothesis are of the view that stock prices would be determined primarily by fundamental factors such as earnings per share, dividend per share, payout ratio, size of the firm and dividend yield, management and diversification (Srinivasan, 2012). However, sequel to information asymmetry, stock market information may not be available to all stakeholders at the same time. Citing Copeland and Weston (2005), Khan (2009) submits that the source of the information asymmetry is the superior knowledge that managers have about the firm's prospects, while the investors in the firms comprise the uninformed group.

Consequently, the deficiency of Efficient Market Hypothesis saw the entrance of the Lifecycle Model. The multifactor model as opined by Saeed and Akhter (2012) is based upon the assumption that many macroeconomic factors such as Consumer Price Index, Interest Rate Industrial Production, Exchange Rate, Risk Free Rate and Money Supply are involved in the determination of risk and return relationship. Hence, the Lifecycle Theory is the theory underpinning this study.

The firm life cycle theory of dividends is based on the notion that as a firm becomes mature; its ability to generate cash overtakes its ability to find profitable investment opportunities. Eventually, it becomes optimal for the firm to distribute its free cash flow to shareholders in the form of dividends.

(Grullon and Michaely, 2002; DeAngelo and DeAngelo, 2006; DeAngelo et al., 2006; Denis and Osobov, 2007) opine that life cycle theory is used to explain the volatility of dividend payments. The explanation is based on tradeoff between the benefit and cost of paying dividends. The cost and benefits of dividends policy is different for different firms. High retained earnings of mature firms are able to give high dividends, while younger firms provide low dividend due to build up their reserves to finance growth opportunities. There is

positive relationship between dividend and life cycle is expected.

Conceptually, ratios are used as indexes or yardsticks for evaluating the financial position and performance of a firm (Pandey, 2004). In the same vein, Adeniji (2004) posited that ratios express the relationship between two or more financial/statistical data in the financial statement or management account. It is also expressed as a percentage of or in relation to another figure or group of figures in the same financial statement or management account. Ilaboya (2005) recognizes that accounting ratio is an index computed from two or more accounting values with close affinity or relationship. He also went forward to say that it is based on information disclosed in the financial statements; and the efficacy of accounting ratios in assessing the performance of business organizations is limited by the distortions in accounting data from which they are derived. According to Jennings (1997), a ratio is simply one number expressed in terms of another number to show the relationship between the two numbers; and also the important relationship between items in the trading account and in the profit and loss account, between items in trading account and in the balance sheet and between items in the profit and loss account and in the balance sheet.

Financial ratios can also be seen tools used in the inter-firm comparison, the aim of which is to improve return on investment by identifying weakness in the production process through comparison with other firms in the same industry and finding ways of improving earnings. Hence, the ratios employed in this study are earnings per share, dividend per share, net asset value per share and dividend cover.

### B. Empirical Review

Basu (1977) in the earnings multiplier model (P/E) argued that, earnings is the most important factor that determines the financial health and real value of a company and which in case of rational investors it should determine the share price. Earnings multiplier (P/E) model pioneered by Basu, is a common measure used to indicate market assessment of a company's earnings relative to their current stock price. The rationale underlying the basic concept is that value of any investment is the present value of future earnings.

Al-Tamimi (2007) developed a simple regression model to measure the coefficients of correlation between stock price and Earnings per share; Dividend per share; Oil price; Gross domestic product; Consumer price index; Interest rate and Money supply. He discovered that Earnings per share had the most influencing factor over the market.

A large number of studies have investigated the changes in share prices and some factors which are believed to trigger such movement in share prices. The movement in share price of quoted companies like oil and gas industries is accentuated

by changes in the fundamental factors which Kehinde (2012) identifies as financial performance and macro economic variables, as well as the market noise which according to him, cannot be captured as the fundamental factors. Agrawal (2011) states that the earning of a firm is the most influential of the variables that can influence the movement of share price in the capital market; he further stresses that, it is in tandem with this, quoted companies disclose their earnings every quarter. Schmist (2011) opines that due to the fact that the world is become a global village and if a sneeze in one part of the globe can cause flu in other part, the slightest rumour of war, rises in the price of oil, or interest rate hike can detonate a reaction in the world market. This to an extent explains the reason of the recent past global recession which is believed to have been triggered off in the United State of America (Shen, 2010).

Gordon (1963) concentrated his study on modeling share prices. He critically evaluated three possible hypotheses with regard to the investment decision. These hypotheses which the investor considers when acquiring a share are: the earnings, the dividends or both. He studied the relationship among the share prices, dividends and earnings by regressing the share prices against dividends and earnings and used the elementary theory to explain the variation in stock prices with dividends and earnings. Gordon's findings support that both dividends and earnings have power in explaining the movement in the share prices.

### III. METHODOLOGY

This research involves the use of cross-sectional correlation study. Correlation study involves collecting and analyzing data in order to determine whether a relationship exists between two or more quantifiable variables and the strength of the relationship. This design permits a researcher to analyze the inter-relationship among a large number of variables in a single study. Additionally, a correlation study also allows a researcher to analyze how several variables either singly or in combination might affect a particular phenomenon being studied (Cooper and Schindler, 2004). The design adopted is used to evaluate the relationship between financial ratios and share price movements in Nigeria oil and gas. The researcher also made use of correlation coefficient analysis to measure the magnitude of the relationship that exists between financial ratios and share price movement in the Nigeria oil sector.

The study covers the four selected companies. This includes: Mobile oil Nigeria plc, Oando plc, Conoil plc and Mrs Oil Nigeria. All are quoted on the Nigerian Stock Exchange and their share also traded on the floor of the exchange. The data collected, presented, analyzed and discussed in this study were from secondary source which was extracted from financial statements and annual report of companies selected as sample between the period of 2002 - 2014, past research projects, journals, internet sources, text books, fact books, seminar papers, conference papers,

workshop papers, official publications and periodicals. Data were also extracted from the archive of the Institute of Chartered Accountants (ICAN), Central Bank of Nigeria and Nigeria Stock Exchange (NSE). This was equally extracted from company financial statement and annual reports gathered from the companies used for the study.

The population of this study was composed of eight oil and gas services listed at the Nigerian Stock Exchange (NSE). The quoted companies were used because of easy availability of their information due to the disclosure requirements by the Capital Markets Authority (CMA).

#### A. Research Variables

The research variables are structured into dependent and independent variables for the purpose of the analysis; though the main concern is to evaluate the magnitude and strength of their relationships which could go both ways. The independent variable of this study is the Market Share Price while Earnings per Share, Dividend Per share, Net Asset Value Per Share and Dividend Cover stands for the dependent variables.

**Table 1: Variable Description**

Short Form (Acronym)	Details	Source of Data
MSP	Market Share Price	Nigeria Stock Exchange
EPS	Earnings Per Share	Annual Report and Account
DPS	Dividend Per Share	Annual Report and Account
NAVPS	Net Asset Value Per Share	Annual Report and Account
DCO	Dividend Cover	Annual Report and Account

Source: Author's Arrangement.

- **Market Share Price (MSP)**

Market Share Price is the value of a firm's equity share. Equity share is the unit of ownership of a company. The shares are sold to generate fund for expansion, diversification and investment. Price of equity share is determined ultimately through the interactions of the forces of demand and supply.

- **Earnings Per Share (EPS)**

When an organization shows convincing signs that it has the capacity and potentials of earnings especially in the long run term, investors are most likely to be attracted to such an organization which could lead to an increase in its share prices. Earnings Per Share is calculated by dividing the organizational total earnings or income by the number of shares the organization has outstanding. Total earnings could be proxied by Profit before Interest and Taxation (PBIT).

• **Dividend Per Share (DPS)**

Dividend Per Share is the sum of declared dividend for every ordinary share issued divided by total outstanding equity shares. It is the total dividend paid to equity shareholders over an accounting year (including interim dividends) divided by the number of outstanding ordinary shares issued. Profit is distributed to equity shareholders through Dividend payout. A consistent growth in dividend per share is a good signal as supported by signaling theory that the firm could sustain her growth even in the long run.

• **Net Asset Value Per Share (NAVPS)**

Net asset value per share (NAVPS) is the value of a firm's total assets (fixed and current assets) less the value of its liabilities (long and short term liabilities) divided by the number of outstanding shares. It is an acceptable yardstick for estimating the performance of companies especially property and investment companies.

• **Dividend Cover**

Dividend cover (DCO) refers to earnings per share divided by dividend per share of a company. It indicates how many times earnings per share is able to cover the amount paid out as dividend.

**Model specification**

$$MPS_t = \beta_0 + \beta_1 EPS_{t-1} + \beta_2 DPS_{t-1} + \beta_3 NAVPS_{t-1} + \beta_4 DCO_{t-1} + \varepsilon$$

Where:

$MPS_t$  = Share Price for the period t.

$EPS_{t-1}$  = Earnings Per Share for period t-1.

$DPS_{t-1}$  = Dividends Per Share for period t-1

$NAVPS_{t-1}$  = Net Asset Value Per Share for period t-1

$DCO_{t-1}$  = Dividend Cover for period t-1

$\beta_0$  = Regression constant.

$\varepsilon$  = Random error term which represents the combined effect of omitted variables.

b, c, d, and e are regression coefficients.

IV. DISCUSSION OF FINDINGS

A. Test for Stationarity of Time Series Data

Test for stationarity of data series, otherwise referred to as Unit Root Test is conducted on the Time Series Data. It is necessary for time series data to attain stationarity in order to prevent spurious regression that tends to accept a false relationship or reject a true relationship when non-stationary series are used for data analysis. A graphical representation was made to initially ascertain the existence of unit root in the time series data. The line graphs reveal that the data series were not stationary and needs to be disinfected. This is evident from the fact that the line graphs did not cross the zero line even at an instance as shown below:

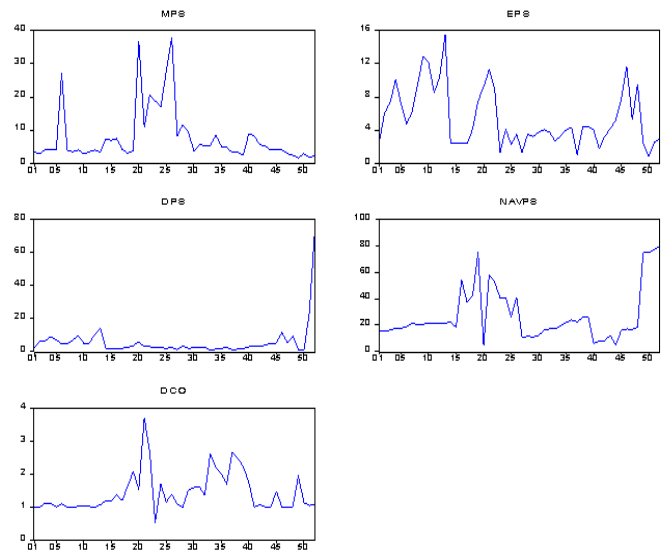


Figure 1: Graphical Representation of the Variables after differencing at I(1)

Source: Author's EView 8.0 Output.

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Source: Author's EView 8.0 Output.

Figures 1 show the pattern of movement of the variables in the individual firms within the Nigeria Oil and Gas Sector selected for the study. They are Mobile Oil Nigeria Plc, Oando Plc, Conoil Plc and MRS Oil Nigeria. None of the variables shared similar trend amongst the firms under study as depicted by the graphical representations. This could be attributable to the different corporate priorities, policies and strategies such as retention policies, extent of depreciation provision, youth restiveness, exposure to corporate social responsibilities, superior cost reduction strategies, asset size, volume of reserves, quantity produced and exported etc.

**Unit Root Test**

The Augmented Dickey Fuller (ADF) procedure was adopted in testing for existence of unit root in the time series data, as well as the order of integration of the variables.

Table 2: Augmented Dickey Fuller (ADF) Unit Root Test Results

Variables	Test Critical Values			Test Statistics	Status
	1 %	5 %	10 %		
MPS	-3.565430	-2.919952	-2.597905	-4.559583	I(1)
EPS	-3.565430	-2.919952	-2.597905	-3.788739	1(1)
DPS	-4.156734	-3.504330	-3.181826	-5.684748	1(2)
NAVPS	-4.170593	-3.510740	-3.185512	-6.595941	1(1)
DCO	-4.170583	-3.510740	-3.185512	-7.037516	1(1)

Source: Researcher's EView 8.0 Computation

Table 2 reveals that the time series data from the annual report and accounts of the selected oil companies at intercept and first difference, except dividend per share which the data series became stationary at second difference.

Therefore the outcome of the unit root test resulted in the generation of data series, free from unit root as shown in the graphs below:

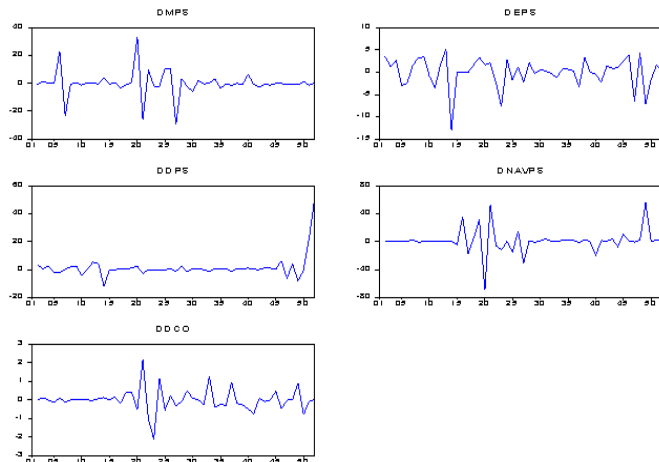
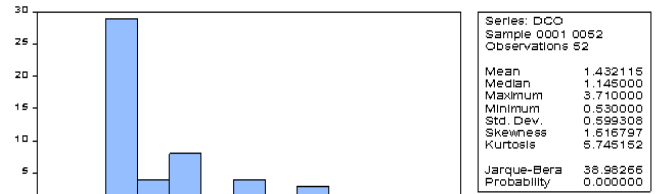
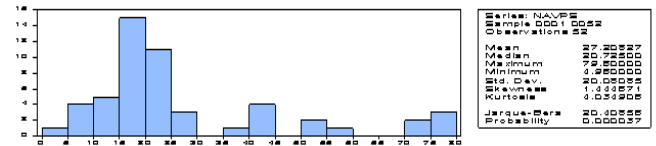


Figure 2: Graphical Representation of the Variables after differencing at I(1)

Source: Author's EView 8.0 Output.



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Naik and Padhi (2012) stated that if the value of skewness and kurtosis are 0 and 3 respectively, the observed distribution is said to be normally distributed but if the skewness coefficient is in excess of unity, it is considered fairly extreme and the low (high) kurtosis value indicates extreme platykurtic (extreme leptokurtic).

All the variables except EPS have skewness value that is in excess of unity and this indicates that data for EPS only are normally distributed. A confirmatory test with Jarque-Bera statistics is also necessary as it tests whether the series is normally distributed by measuring the difference of the skewness and kurtosis of the series with the series from normal distribution. Coefficient of Jarque-Bera statistics is significant when it has a small probability value. The significant coefficient of Jarque-Bera statistics is an indication that the frequency distribution of a series is not normal. The P-value for all the variables except EPS is significant for the Jarque-Bera statistics. This confirms a fairly normal distribution for only EPS.

Table 3: Descriptive Statistics of the Variables

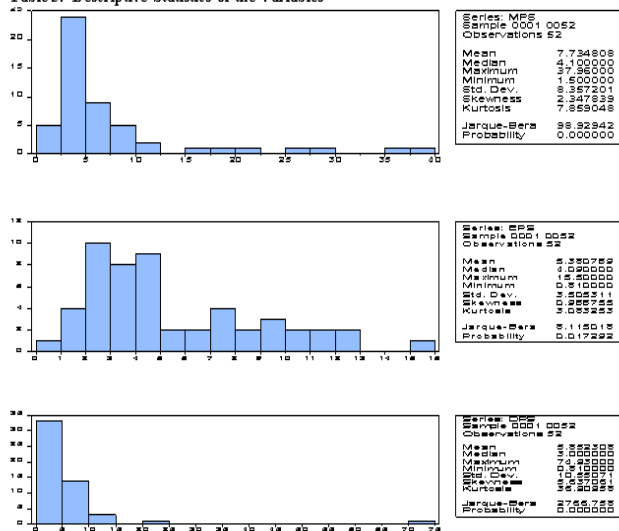


Table 4: Regression Analysis Results

Dependent Variable: MPS

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EPS	-0.119404	0.413463	-0.288790	0.7740
DPS	0.013700	0.161147	0.085016	0.9326
NAVPS	-0.157895	0.084520	-1.868128	0.0681
DCO	-1.566316	2.495946	-0.627544	0.5334
C	0.161864	1.269026	0.127549	0.8991
R-squared	0.141840	Mean dependent var		-0.021569
Adjusted R-squared	0.067217	S.D. dependent var		9.198196
S.E. of regression	8.883681	Akaike info criterion		7.299203
Sum squared resid	3630.310	Schwarz criterion		7.488598
Log likelihood	-181.1297	Hannan-Quinn criter.		7.371577
F-statistic	1.900760	Durbin-Watson stat		2.780949
Prob(F-statistic)	0.126392			

Source: EView 8.0 Output

Table 4 indicates that MPS is influenced positively by DPS and negatively by EPS, NAVPS and DCO in varied magnitude; though none was to a significant extent. The adjusted R<sup>2</sup> reveals that only about 7% of the variations in MPS could be explained by EPS, DPS, NAVPS and DCO while about 93% could be explained by other factors capable of influencing

MPS in Nigeria Oil and Gas sector; such as government influence through price regulation, as well as the error term.

**Table 5: Correlation Analysis**

	MPS	EPS	DPS	NAVPS	DCO
MPS	1.000000				
EPS	-0.078734	1.000000			
DPS	-0.154153	0.114453	1.000000		
NAVPS	-0.039334	-0.138239	0.367224	1.000000	
DCO	0.053128	-0.021115	-0.215695	0.247262	1.000000

Source: EView 8.0 Output

**Table 5:** Table 5 indicates, as an outcome of correlational analysis using the collected secondary data that a weak, negative and insignificant relationship exists between EPS, DPS, NAVPS and MPS in Nigeria oil and gas sector, except for DCO with a positive association with MPS. The strength of the relationship between MPS and DPS is about 15% and the strongest. This implies that DPS is stronger in association with MPS than the other explanatory variables under study. This portends that DPS could help investors to predict movements of share prices in Nigeria oil and gas sector.

**Table 6: Pairwise Granger Causality Tests**

Date: 08/05/15 Time: 06:15

Sample: 0001 0052

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
EPS does not Granger Cause MPS	50	0.16968	0.8445
MPS does not Granger Cause EPS		0.16520	0.8482
DPS does not Granger Cause MPS	50	0.09599	0.9087
MPS does not Granger Cause DPS		0.45026	0.6403
NAVPS does not Granger Cause MPS	50	1.86621	0.1665
MPS does not Granger Cause NAVPS		0.43116	0.6524
DCO does not Granger Cause MPS	50	0.87266	0.4248
MPS does not Granger Cause DCO		1.04729	0.3593

Table 6 reveals that at Lag 2, there is no causality running from MPS to any of the variables or from any of the explanatory variables to MPS. The implication of the outcome is that MPS is not granger caused by any of the variables under study in Nigeria oil and gas sector.

**Table 7: Johansen Cointegration**

Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.481342	71.59877	69.81889	0.0358
At most 1	0.334070	38.77325	47.85613	0.2694
At most 2	0.184357	18.44474	29.79707	0.5333
At most 3	0.136588	8.255810	15.49471	0.4385
At most 4	0.018087	0.912620	3.841466	0.3394

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.481342	32.82553	33.87687	0.0664
At most 1	0.334070	20.32851	27.58434	0.3189
At most 2	0.184357	10.18893	21.13162	0.7267
At most 3	0.136588	7.343190	14.26460	0.4494
At most 4	0.018087	0.912620	3.841466	0.3394

Max-eigenvalue test indicates no cointegration at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

In some situations, Trace Test tend to have more heavily distorted sizes whereas their power performance is superior to that of Maximum- Eigen-Value competitors and because of the common practice in empirical work to use either both types of tests simultaneously or use Trace Test exclusively, preference is made for the Trace Tests (Lutkepohl, Saikkonen and Trenkler, 2000). Johansen and Juselius (1990) argued that the existence of a cointegration equation reveals the existence of a long term relationship between some of the variables under study. In this case, Trace test indicates one cointegrating equation at the 0.05 level and this denotes rejection of the hypothesis at the 0.05 level. This indicates that the short term relationship shared by the focal and explanatory variables could be sustained in the long term.

## V. CONCLUSION

The purpose of the study is to evaluate the nature and magnitude of the effects and relationship between selected financial ratios, such as earnings per share, dividend per share, net asset value per share, dividend cover and market price of ordinary shares as well as the causalities and cointegrations of the variables within the Nigeria oil and gas sector. It was found that MPS is influenced positively by DPS and negatively by EPS, NAVPS and DCO in varied proportion; though none was to a significant extent. The adjusted R<sup>2</sup> reveals that only about 7% of the variations in MPS could be explained by EPS, DPS, NAVPS and DCO while about 93% could be explained by

other factors capable of influencing MPS in Nigeria Oil and Gas sector; such as government influence through price regulation. A weak, negative and insignificant relationship was found to exist between EPS, DPS, NAVPS and MPS in Nigeria oil and gas sector, except for DCO with a positive association with MPS. There was no causality running from MPS to any of the variables or from any of the explanatory variables to MPS. On whether the short term is sustainable in the long run, Johansen Cointegration Test revealed that the short term relationship shared by the focal and explanatory variables could be sustained in the long term by indicating one cointegrating equation at the 0.05 level.

However, the result is not in line with a priori expectation because of the peculiar nature of the Nigeria Oil and Gas sector. In this sector, price is not determined by the forces of demand and supply which is contrary to a crucial economic principle. The heavy government presence in the sector makes it impossible for Oil firms to determine the price of the product based on considerations of production cost and margin of safety. This is what led to subsidization of the product price by government and its' own fixed prices leading to serious crises in the sector. The call for the passage of the Petroleum Industry Bill (PIB) in Nigeria is faced with stiff opposition by the cabals the heavily benefit from the anomalies that lack economic definitions in the sector.

The role of the Organisation of Petroleum Exporting Countries (OPEC) in determining the quantity and price of crude oil exports by member countries also makes the sector very unique. This implies that member countries such as Nigeria produce and export in line with OPEC mandates and not based on installed capacity. The problem is also worsened by the fact that the refineries in Nigeria are not working. The Warri refinery that is working is operating at grossly below capacity and the output could not be felt in ameliorating the lingering oil crises in Nigeria. This is why the removal of these bottlenecks is crucial by complete deregulation and removal of subsidy as this will usher in an era of competitive pricing, local refining and very reduced government presence in the all important sector.

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