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Financial Statement Analysis and Investors' Decision: Empirical evidence from listed petroleum firms in Nigeria

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Abstract

This research focuses on the effect of financial statement analysis on investors' decisions regarding listed petroleum firms in Nigeria. The methodology employed was a regression based approach using panel data covering a period of ten years which was obtained from financial statements of listed petroleum firms in Nigeria. The result showed significant relationship between equity and financial performance indices adopted for the study. Petroleum firms owe a duty to fully disclose matters concerning their operations so as to aid investors in making investment decisions because investment decision-makers rely on information obtained from financial statements to predict future rates of return. Without the financial statement, there will be a problem of how to determine the profit and performance of a company. We discovered from the analysis that profitability is not the major factor for making decisions but it plays a vital role in making good investment decisions by existing or prospective investors. Conclusion was drawn based on the findings that financial statement plays a vital role in investment decision-making while recommending that no investment decision should be taken without the consideration of a company's financial statements.

Key words: Financial Statement, Investors, Investment, Petroleum firms

Introduction

Every economy is driven by activities of investors (both local and foreign) thereby propelling the need for government to create enabling environment that would enhance investment decision making. Investments are often channeled to viable business activities within a particular country and it usually involves large amount of funds from which the investors expect good returns. Nigeria being a mono-economy depends largely on the revenue generated from the extraction, refining, and sale of crude oil and this has continued to attract investors to both the upstream and downstream sectors of the economy. Undoubtedly, huge capital is required for activities in the oil and gas sector of the economy. The downstream sector which deals with marketing of refined crude oil products, has varied investment opportunities such as; domestic production and marketing of Liquefied Natural Gas (LNG); domestic manufacturing of LNG cylinders; establishment of processing plants and industries for the production of refined mineral oil, petroleum jelly and grease; crude oil refining with efficient export facilities etc. (www. nnpcgroup.com). Companies operating in the downstream sector especially those listed on the floor of Nigerian Stock Exchange (NSE) require both individual and corporate investors to boost their business activities. Businesses are run with shareholders capital (Gilbert, 2011). Listed Petroleum firms needs to enhance their investors' confidence through production of reliable financial statement. According to Afolabi (2013), financial statement is a formal and comprehensive statement describing the financial activities of a business organization. In order to optimise the usage of financial information in the context of decision making process, there is need for financial statements analysis. Financial statement analysis is the process of converting data from financial statements into usable information for business quality measurement by different analytical techniques (Zager & Zager, 2006). It involves critical evaluation of the financial facts and figures contained in the financial statements so as to gain insight into the profitability and operational efficiency of the firm to assess its financial health and future prospects. IAS 1 (2007) defines the components of financial statement to include; statement of financial position, statement of profit or loss and other comprehensive income, statement of equity in changes, statement of cash flow and notes to the account. The perceived relevance of the financial statement is to provide information about the financial position, performance and changes in financial position of a firm that is useful to a wide range of users in making management and investment decisions (Afolabi, 2013; Onyeiwu, 2011, Olagunju, 2011). Financial statement can thus have a drastic effect on the stock price of a company because many investors look at the financial statement when making investment decision. (Arthur, 2016; Osuala, Ugwumbaand & Osuji, 2012). Investment decision depends on expectation of the benefits of the investment, which in turn depends on expectation of future growth and products demand. Expectation of future growth is based on information such as earning per share, dividends per share, leverage, liquidity. Hence, the financial statement is considered very important to shareholders. It is therefore critical for companies to ensure that the information the financial statement presents is correct and meaningful to users (Arthur, 2016; Omolehinwa, 2000).

The objective of this study is to investigate the effect of financial statements analysis on investors' decision of listed petroleum firms in Nigeria. Specifically, the study seeks to:

i. Evaluate the financial performance indices of listed petroleum firms as a basis for investors' decision making.
ii. Examine the use of analytical tools by investors to assess the financial position of listed petroleum firms.

Problem statement

The fluctuating nature of crude oil price in the international market in recent times have continued to significantly impact on the performance of firms within the petroleum sector of the economy thereby posing some sort of increased risk to investors. Performance of firms are shown by the financial information reported in the financial statements. Such financial information forms the basis for decision making as it is needed to predict, compare and evaluate a firm's earning ability. Investors therefore, require the ability to soundly analyse and interprete the financial statement content reported by management in order to make informed investment decisions. Few studies have been carried out on the financial statements content and investments decisions (Osuala, Ugwumbaand & Osuji, 2012; Olagunju, 2011; Onyeiwu, 2011; Micheal, 2013; Mercy, 2014; Afolabi, 2013; Popoola, Akinsanya, Babarinde & Farinde, 2014) while the effect of financial statement analysis of listed petroleum firms listed on investors' decision is yet to be explored. Hence, this study. The study will seek to provide answers to the following questions: What are the performance indices that are to be observed by investors in making effective decision? Are financial analytical tools adequate to dissect financial statements for informed investment decision?

Brief Historical Background of the Petroleum Ssector in Nigeria

The history of the petroleum industry in Nigeria reveals that oil was discovered in Nigeria in 1956 at Oloibiri in the Niger Delta. The discovery was made by Shell-BP. Nigeria joined the ranks of oil producers in 1958 when its first oil field came on stream producing 5,100 barrels per day. After 1960, exploration rights in onshore and offshore areas adjoining the Niger Delta were extended to other foreign companies. The country joined the Organisation of Petroleum Exporting Countries (OPEC) in 1971 and established the Nigerian National Petroleum Company (NNPC) in 1977; a state owned and controlled company which is a major player in both the upstream and downstream sectors. The Nigerian petroleum industry has been described as the largest among all industries in the country. The size, international characteristic, and role assumed by the petroleum industry were noted to have originated from the notion that petroleum is versatile as it currently satisfies a wide variety of energy and related needs. The revenues obtained from crude oil in Nigeria are of absolute advantage to expenditure commitments on various projects at the local, state, and federal levels. The Nigerian economy relies heavily on the revenue derived from petroleum products, as they provide 70 percent of government revenue and about 95 percent of foreign exchange earnings. Apart from this, the contribution of petroleum to national development is many and varied; employment generation, foreign exchange earnings, income generation, industrialisation, and improvements in other economic variables. While the major investors in the petroleum industry are the international oil companies (IOCs), the principal legislation governing petroleum operations in Nigeria is the Petroleum Profit Tax Act (PPTA) of 2007. Its main fiscal instrument is the Petroleum Profit Tax (PPT).

Financial Statements Analysis

The basis of financial planning analysis and decision making is financial information. Financial statement is required to aid in economic decision making investment and financing decision making. Financial statement, according to Gavtam (2005), is defined as financial information which is the information relating to financial position of any firm in a captured form. It includes an income statement and statement of financial position describing the flow of resources, profit and loss and the distribution or retention of profit. Users of financial statements can get further insight about financial strength and weakness of a company if they properly analyse information reported in these statements. Therefore, financial analysis is the process of identifying financial strength and weakness of a company by properly establishing relationships between the items in the statement of financial position and income statement. Financial analysis can be undertaken by the management of the company or by parties outside the company e.g. shareholders, creditors, investors and others. The nature of the analysis will differ depending on the purpose of the analyst. Financial statement serves functions such as: providing facts about the financial operations of a business organisation, assisting management to make decisions that are necessary for the continuity of the business. It provides information about the financial strength, performance and changes in information position of an enterprise that is useful to a wide range of users in making economic decisions. It is also used to account for the scare resources because decisions as to where capital should be invested are made on the basis of information contained in the financial statement.

Amedu (2014) describes the ideal financial statement prepared by management to be such one that is relevant as far as problem solving is concerned having the following attributes:

i. Relevance: For information that is disclosed in the financial statement to be useful at all, it must be legally relevant. That is, it must be associated with the decisions it is designed to aid and facilitate.
ii. Capable of verification: Financial statement should disclose information which can be verified from the records of the company. Qualified individuals working independently of one another should be able, upon examination of the same data be able to derive similar conclusion.
iii. Uniformity: Accounting practices should be uniform both within the corporations and other organisations. Ideal financial statement of one enterprise should be readily comparable with those of another in the same industry.
iv. Consistency: This states that any accounting method adopted by any organisation should be used consistently over a period of time. However, the consistency provision demands that enough notice be given before a change in the accounting method is affected.
v. Understandable: The financial statement is intended to be understandable by users who have reasonable knowledge of business, economic activities and accounting, and who are willing to study the information diligently.
vi. Completeness: The information should provide users with a sound picture of the economic activities of the reporting entity. By this, it means that every aspect of the business which can be reported in money terms should be reported as far as possible to give information concerning the result completely.
vii. Timeliness: The date of publication of financial statement should be soon after the end of the period to which the report relates, as corporation is geared towards the provision

of information for decision making. Unnecessary delay in the preparation of financial statement may make it lose its relevance.

viii. Accuracy: The financial statement should disclose correct and accurate information about the profitability and financial position of a business. They should only report factual information. No false information is to be included. False information could lead to wrong decision making.

Components of Financial Statement

Components of financial statement are discussed below;

i. Statement of financial position: This is a component of financial statement showing the assets, liabilities and net equity of a company at a given period usually at the end of the year. The fact and figures shown must be true and correct.

ii. Statement of profit or loss and other comprehensive income: It is a component of financial statement that gives a company operating results for a specific period of time. Also referred to as earnings reports, operating statement cover a year of operations. Its objectives include the measurement of capital maintenance and income distribution.

iii. Cash flow statement: Cash flow statement is prepared at the end of a fiscal Period to show how cash was affected by the business operating, investing and financing activities during the accounting period. Simply stated, cash flow statement means a statement showing changes or movement of cash or cash equivalent during a given period. It presents the various sources of cash inflows and various heads of cash outflows. It is prepared from income statement and changes in the working capital.

iv. Statement of changes in equity: This statement explains the changes in a company's retained earnings over the reporting period.

v. Auditor's report: The auditor is required to form opinion on the enterprise's financial statement as the whole. Having accumulated audit evidence about individual items or group of items in the accounts, the auditor should therefore carry out an overall review of the financial statement to satisfy him that a true and fair view is presented.

vi. Directors' report: The directors' report gives certain factual information relating to the year under review which has to be disclosed by law.

Role of Financial Statement in Investment Decision

The aim of financial statement is to provide financial information about an entity to interested parties. The information contained in the reports, however, can only become meaningful through financial interpretations derived from the analysis of the reported data (Amedu, 2014). These interpretations and decision unveils the essence of financial statements as the major custodian of financial information necessary for any investment decision. Investment decisions are not made in a vacuum: hence there are bedrocks on which they will stand. One major tool for these investment decisions is the ratio analysis. Ratio analysis is the judgmental process which aims at evaluating the current and past financial positions and the results of an entity which is the primary objectives of determining the best possible estimate about the future conditions and performances. According to Zagler and Zagler (2006), ratios are relative numbers which means that one economic value is put into relation with other economic value. They noted that ratios contain concentrated information that is needed for business quality measurement and decision making process as it measures the quality level of particular economic phenomena which are included in financial statements. Types of financial ratios based on investment decisions to be made include; liquidity ratios used to measure company's capability to pay its payable current liabilities; leverage ratios which focuses on how the company is financed from creditors' resources; activity ratios employed to determine how efficiently company uses its own resources; economy ratios which measures relation between revenues and expenses; profitability ratios showing return of the invested capital and the highest managerial efficiency; and investibility ratios which measures efficiency of investment in ordinary shares. Gavtan (2005) notes that financial analysis is a process of determining and interpreting the relationship between the items of financial statement in order to provide a useful understanding of the performance, solvency and profitability of an enterprise. More so, for ratio to be useful in investment decision, it must be compared with earlier periods, to indicate trends or compared with similar organisations in the industry to determine strengths and weaknesses ideally compared with the industrial average.

The Modern Portfolio Theory (MPT)

Markowitz's theory is today known as the Modern Portfolio Theory (MPT). The MPT is a theory of investment which attempts to maximise portfolio expected profit for a given amount of portfolio risk, or equivalently minimise risk for a given level of expected profit, by carefully choosing the proportions of various assets. Although the MPT is widely used in practice in the financial industry, in recent years, the basic assumptions of the MPT have been widely challenged. The fundamental concept behind the MPT is that assets in an investment portfolio should not be selected individually, each on their own merits. According to William (2011), the best measure of a company is its profitability, for without it, it cannot grow, and if it does not grow, then its stock will trend downward. Increasing profits is the best indication that a company can pay dividends and that the share price will trend upward. The common profitability measures compare profits with sales, assets, equity and liabilities, net profit margin, return on assets, and return on equity. The study considers the modern portfolio theory for its financial model specification.

Empirical Review of Related Literature

Several studies have focused on the use of financial statement by investors. Some researchers have argued that most of these investors do not understand the financial statement well enough to utilize them efficiently. Some noted that investors depend heavily on the credibility of auditors/ financial expert's approval of financial statement in making investment decisions and as such if they are misled, it could lead to loss of funds and possible litigation. While others hold that the effectiveness of the financial statement not only depends on the purposes of such systems but also depends on contingency factors of each organisation. Most researchers however noted the utmost importance of financial statement in making investment decisions. Michael (2013) examined the degree of reliance on the published financial statements by corporate investors. The study employed survey research design by which data were generated by means of questionnaire administered on 150 corporate investors and senior management officials of selected banks. Descriptive statistics and percentage analysis were used for the data analysis and the hypotheses were tested using t-test statistic. The results of the analysis also indicated that investors depend heavily on the credibility of auditors/financial expert's approval of financial statement in making investment decisions and as such published financial statement is very important to the investors' decision making. Popoola, Akinsanya, Babarinde and Farinde (2014) investigated the use of published financial statement as it correlates with investment decisions among commercial bank stakeholders in Nigeria. A correlation research design was used in the study. 180 users of published financial statements were purposively sampled from Lagos and Ibadan. Data generated were analysed using Pearson correlation and regression. The findings of the study revealed that balance sheet is negatively related with investment decision, while income statement, notes on the account, cash flow statement, value-added statement and five-year financial summary are positively related with investment decision making. Their findings also revealed that components of published financial statement significantly predicted good investment decision making for commercial bank stakeholders. Amedu (2014) evaluated the role of financial statement in investment decision making. The study was based on survey and questionnaire used to gather the information. He discovered from the test of hypotheses that financial statement is relied upon in investment decision making and financial statements are useful for forecasting company's performance. The conclusion was drawn based on the findings that financial statement plays a vital role in investment decision making and recommends that no investment decision should be taken without the consideration of a company's financial statements. Aroh (2011) noted that the most important purpose of the annual report is to get the shareholders informed about the financial status of their company, especially as to its income and financial position. The usefulness of financial statement to investors is to assist them to assess the ability of an enterprise to pay dividend and interest when due; while to the potential investors, published financial statement is used to decide on the type of security to invest in or which company to invest in. Financial statement of a company should provide information about the economic resources of a company, which are the sources of prospective cash inflows to the company. It should also provide its obligation to transfer economic resources to others which are the sources of prospective cash outflow from the company and its earnings which are the financial results of its operation.

Methodology

This research is essentially investigative and exploratory in that it seeks to evaluate the extent to which financial statement is effective in making investment decisions in the listed petroleum firms. This research study considers all eight (8) petroleum firms listed on the floor of Nigerian Stock Exchange as at 30th April, 2015 namely: Forte Oil PLC, Japaul Oil & Maritime Services PLC, Oando PLC, Total Nigeria PLC, Conoil Nigeria PLC, MRS Oil Nigeria PLC, Mobil Oil Nigeria Plc and Eterna Oil & Gas Company PLC. Panel data for the period of ten years were sourced from the audited published financial statements of the listed petroleum firms. A simple linear regression model was specified to empirically analyse the data obtained.

Model specification

Eqty = f (ROA, ROE, GPM, NPM, ATR).. (i)

Eqty = B_0+ B_1ROA+B_2ROE+B_3GPM+B_4NPM+B_5ATR.................................. (ii)

Eqty = B_0+ B_1ROA+B_2ROE+B_3GPM+B_4NPM+B_5ATR + e.............................. (ii)

Where;

B_0 represent Constant

$B_1 - B_5$ represent the coefficient of each independent variable in the model

Eqty represents Equity

ROA represents return on asset

ROE represents return on equity

GPM represents gross profit margin

NPM represents net profit margin

ATR represents asset turnover ratio

e is error term

Regression Analysis and Discussion of Findings

Model Summary

					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.708[a]	.502	-.121	1.493845	.502	.806	5	4	.599	1.024

a. Predictors: (Constant), Asset Turnover Ratio, Returns on Assets, Gross Profit Margin, Return of Equity, Net Profit Margin

b. Dependent Variable: Total Equity

From the regression analysis carried out as shown in the above table, the result showed that the dependent variable which is equity is enhanced by the independent variables: *ROA, ROE, GPM, NPM and ATR*. The dependent variable and the independent variable were regressed to assess the degree of relationship of the two variables whether there existed any. The results from the simple regression showed positive relationship between the variables. While the ANOVA table as shown above is a useful test of the model's ability to explain any variation in the dependent variable, it does not directly address the strength of that relationship. The R is 70.8% while the adjusted R is 50.2% indicating that change in the dependent variable is captured by the explanatory variable. The correlation coefficient of 70.8% shows strong relationship between the dependent and independent variable. Therefore, the simple regression based model describes a strong interdependence between the variables captured in the model as shown in the above results which is positive and it means that as profitability increases, equity also increases. Although equity of the listed petroleum firms are largely impacted by ROA, ROE, GPM, NPM and ATR, there are however other significant factors comprising 30.2% which are not captured in this research work.

Conclusion and Recommendation

The study aimed at evaluating the effect of financial statement analysis on investors' decisions by drawing empirical evidence from listed petroleum firms in Nigeria. The result obtained from this study, showed:

- that the performance indices to be observed by investors of listed petroleum firms are Return on Assets (ROA), Return on Equity (ROE), Gross Profit Margin (GPM), Net Profit Margin (NPM) and Asset Turnover Ratio (ATR) as they have significant impact on the decisions of shareholders represented by Equity (EQTY) composition of the firm;
- that analytical tools available to investors are financial ratios that is examined in the context of measuring business quality since different ratio values define different levels of business quality. The analytical tools are adequate to dissect financial statements of firms for informed investment decision.

Based on the findings, the study recommends that management, investment analyst, investors and other stakeholders should strive for high transparency in its financial reporting process. Policy makers and regulatory bodies of petroleum firms are also to ensure that all material facts as regard assets and equity of their organisation should be reflected in their yearly financial statement as this will further enhance the credibility of the financial information reported.

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