
EFFECT OF REAL EARNINGS MANAGEMENT ON FINANCIAL PERFORMANCE OF LISTED OIL AND GAS COMPANIES IN NIGERIA

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ABSTRACT

This study examined the effect of real earnings management on the financial performance of listed oil and gas companies in Nigeria. The study adopted the correlational research design. A sample size of 8 listed Oil and Gas Companies was drawn from a total population of 10 listed Oil and Gas Companies as at 31st December 2020. Panel data were extracted from the annual financial statements of listed Oil and Gas Companies for the period 2011 –2020. Panel regression analysis was conducted to evaluate the relationship between financial performance and real earnings management. The significance of the association and relationships was tested at 5% confidence level with a 2-tailed test. The results from the study revealed that abnormal levels of cash flow from operation, abnormal level of discretionary expenses and abnormal production cost from operation have no significant effect on the financial performance of listed oil and gas companies in Nigeria proxied by profit after tax. In view of these findings, it was concluded that real earnings management has not exerted a significant effect on the financial performance of listed Oil and Gas Companies when measured in terms of real earnings management through abnormal levels of cash flow from operation, abnormal level of discretionary expenses and abnormal production cost from operation. The study therefore recommended amongst others the need for management to desist from all inclinations to indulge in real earnings management with the sole aim of presenting a deceptive performance to interested stakeholders in the organization.

Keywords: Real earnings, Cash flow, Production cost, Discretionary expenses

1.0 INTRODUCTION

Globally, earnings are indicators of overall performance of listed firms. Earnings not only serve as a financial performance checklist for internal users, but also external users. Financial performance is usually communicated to its users through financial reporting; an accounting language used by management to communicate private information regarding the firm's performance to stakeholders. Financial reporting allows financial statements to effectively portray differences in firms' economic positions and performance in a timely and credible manner. To strengthen financial reporting, managers are allowed to exercise judgment in selecting reporting methods and estimates that match the firm's economics; however, this create opportunities for them to manage earnings (Healy & Whalen, 1999).

Earnings management is a thought developed by corporate management to intervene in the process of generating more earnings so as to meet the goal of the corporate organization (Olaoye & Akinleye 2020). Olaoye and Akinleye (2020) have emphasized that earnings management is the most disturbing issue because of its relevance in the management of the organization through the use of accrual accounting based in financial statements. Earnings management is perpetuated in any organisation using two different tools: real activities and accruals. Accounting standard regulators are often worried about the implications that both types of earnings management cause to information quality.

In accrual manipulation, managers introduce their judgment and subjectivity by accounting choices in the financial reports, and hence it could distort a company's underlying operating performance (Ubesie, Nwankwo & Nwankwo, 2020). However, it does not generally involve altering operations themselves. In real activity manipulation, on the other hand, managers' objectives are to engage in activities that have the potential to either reduce or increase earnings in a particular accounting period (Ubesie, Nwankwo & Nwankwo, 2020).

The performance of a company is hinged on the management of earnings of the company. According to Nguyen, Nguyen and Phung (2019), performance is the degree of achievement of the mission at work place. Mostly researchers use the term performance to express the range of measurements of transactional efficiency and input and output efficiency. Also Hauwa, Ocheni and Jamila (2017) indicated that profitability ratios designate a company's overall efficiency and performance. It measures the company's use of its assets and control of its expenses to generate an acceptable rate of return. Profits are measures of performance and it describes the financial assurance and health of the company. It connects to the bottom line part of the income statement which manifests how the corporation is financially advantageous and attaching amount to the shareholder's capital (Nguyen, Nguyen & Phung, 2019).

Earnings management is about net profit addition to the profile of the firm. This important component of the accounting statement is what drives an establishment and helps the management to be more focused in handling assets and liabilities of the firm. The resources of the firm are better put into use when the expectation of increasing the net worth and performance of the firm is the concern of the establishment. Both accruals and real earning management methods may be used to manage earnings upwards or downwards for several reasons and with different implications for the future of the firm. Real activity manipulation is preferred to accrual manipulation because it is easier to implement, less costly and more difficult to detect by outsiders (Ruiz, 2016). However, real manipulation is perceived to be more unethical than accrual manipulation, and it can reduce the future valuation of companies as well as their profitability and long-term competitiveness.

One of the areas of concentration in pursuit of stability and sustainability of the firm is to properly manage earnings of the firm. The changes in statements of accounts such as the statement of position, funds flow statements, statements of operations and performance, all lean heavily on earnings management to give true picture of the business. In order to alter their financial results, firms take actions that range from decisions within accounting standards to outright fraud. Decisions made within accounting regulations are often viewed as earnings management and legal practices. This view is based on the acceptability of accounting regulations so that it can draw the line on the continuum distinguishing legitimate earnings management from financial fraud.

Concerning the extensive presence of management of real earnings, this research investigates the effect of real earnings management on the company's profitability. In general, the effect of real earnings management is that, it adversely affects the future performance of the company. Real earnings management allows managers to sacrifice the firm's future profitability for the immediate financial benefits. This study seeks to test the validity of these assertions by examining the effect of real earnings management on performance of listed oil and gas firms in Nigeria. The study is limited to the operating activities decision and leaving out both investment and financing decision. This is because real earnings management which is the focus of this study is perpetuated at the operation stage of production of a firm. The study is also limited to real earnings management variables such as abnormal level of cash flow from operation, abnormal level of discretionary expenses and abnormal production cost from operation and financial performance measured by profit after tax. The study covers the period of ten (10) years, from 2011-2020. The period of the study is considered appropriate because it affords an analysis of the association between the independent variables and dependent variable over a period that coincides with the reforms (International Financial Reporting Standard (IFRS) introduced in the country. The period will also afford recent findings in the context of the sector under study.

1.1 Statement of the Problem

Earnings management, a practice that is used to misrepresent financial information by accountants; has been in existence for decades but has more recently gained ground due to the scandals that have faced the corporate world (Olaoye & Akinleye, 2020). Such scandals involve the misappropriation of shareholders' investments, doctoring of financial statements, colluding with auditors to issue unqualified reports. These sharp practices could also be responsible for the delisting of notable oil and gas firms such as AFROIL, ANINO International and BECO Petroleum Products Plc., that undermined the integrity of financial reporting, which then raised questions as to the reliability of financial statements and the information that is available to users. The recent rise in the practice of earnings management has led to uncertainty among shareholders as to the reliability of financial statements and consequently the true performance of firms (Olaoye & Akinleye, 2020).

Empirical studies on real earnings management were conducted principally in other regions of the world as Nigeria and comparatively few studies were conducted in Nigeria. This has thus created a geographical and location gap paving way for the setting of this study. Most of these studies support an increased understanding of this issue while a handful of the investigations looked at the effect of real earnings management on firm performance to evaluate the effect of this behaviour, based on signal theory and institutional theory. There is sparsity of empirical research on real earnings management and profitability of listed oil and

gas firms in Nigeria as most studies have concentrated mostly on manufacturing sector. Thus the need for this present study.

A cursory examination of prior studies have shown that the studies on earnings management in the past are primarily centered on accrual based earnings management. Recently, studies that focused on real activity earnings management or manipulation as a proxy for earnings management are beginning to gain momentum. For instance Olaoye, and Akinleye, (2020) examined Accrual Earnings Management, Real Earnings Management and Firm's Value of Quoted Manufacturing Companies in Nigeria and Al-Zahrani (2019) investigate the effects of Real Earnings Management on the Profitability of the Company while Nguyen, Nguyen and Phung (2019) examine the relationship between Real Earnings Management and Firm Performance of Energy Firms in Vietnam. Salau and Ayoib (2017) examined the relationship between accrual-based and real earnings management tolerance of auditors in boardrooms of politically connected companies. Susanto (2017) empirically examined the influence of accrual earnings management and real earnings management on firm's value of non-financial institution in Indonesia. This present study will therefore add to these few existing studies by providing empirical evidence on the effect of real earnings management on the performance of listed oil and gas firms in Nigeria.

1.2 Objectives of the Study

The broad objective of this study is to assess the effect of real earnings management on financial performance of listed Oil and Gas firms in Nigeria while the specific objectives are to:

- i. Ascertain the effect of abnormal level of cash flow from operation on the profit after tax of listed oil and gas firms in Nigeria.
- ii. Determine the effect of abnormal level of production cost on the profit after tax of listed oil and gas firms in Nigeria.
- iii. Examine the effect of abnormal level of discretionary expenses on the profit after tax of listed oil and gas firms in Nigeria.

2.0 LITERATURE REVIEW

2.1 Theoretical Framework

This section focuses on review of theories that provide the foundation for this study. The anchor theory of the study is the signaling theory. It is supported by the agency theory and the stakeholder theory.

2.1.1 Signaling Theory

This theory was propounded by Ross (1977). The theory is based on the hypothesis that accounting variables are used as a signaling means in the financial communication by the enterprises whose capitalization perspectives are favourable. Signaling theory was introduced in the research of accounting options in order to take into consideration the informational asymmetry existing between managers and shareholders. Agreeing with the opinions issued by authors like Healy and Palepu (2001) and Bini (2011), signaling theory was created and introduced as an alternative explanation to the field of policies of result flattening and as a ground for the financial communication policies and voluntary reporting of information.

The signaling theory is relevant in the analysis of factors considered in choosing the accounting policies and practices. Moreover, the choice of accounting policies results from

the wish to cope with the spirit of regulations or standards or to reflect the company's economic reality or to provide a true and fair view image. It is crystal clear that the choice of the accounting policies sends certain signals to the interested parties and obviously, there is the question: What does the diversity of the observed accounting choices reflect? The managers' tendency to manipulate the result according to the interests pursued. Yet, there are other factors, too, in the managers' decision making process, among them being the governance mechanisms. To the extent to which these mechanisms are partially based on the accounting information, choosing different accounting policies, the managers can influence the efficiency of the governance mechanisms. Pooling resources and maintaining the economic indices such as the share price at a positive level are elements highly motivating the managers in voluntarily diffusing the financial and non-financial information. This is done, essentially, by implementing a signaling or warning policy. As it results from literature, numerous signaling models are different due to the typology of instruments used.

There is this tendency of the managers to manage the content of accounting information in their personal interest, especially to maintain their position within the company. They might communicate or signal to the enterprises' partners a certain amount of information through some appropriate accounting policies. Thus, the signaling approach is based on the main hypothesis that the information is not distributed homogeneously among the users of financial statements. The phenomenon might lead to market disappearance in which the informational asymmetry dominates by chasing away successful enterprises which are replaced by those with insignificant results. Yet, for the market not to disappear, it is in the best interest of the managers of lucrative companies to signal the performance to the investors. The signaling activities or actions are carried out through different instruments, especially through relevant accounting policies.

The theory is relevant to this study because under signaling theory, managers use accounting numbers to signal their expectations to investors who use accounting information for decision making. Enekwe, Onyekwelu and Nwoha (2016), posit that managers who expect a high level of future growth would signal such expectations via published financial statements. They further stated that even managers of firms with poor financials would signal positive news to retain high rating among investors thus deceiving them to invest. The logical consequence of signaling theory, according to Godfrey Hodgson, Tarca, Hamilton & Holmes (2010) cited in Enekwe, Onyekwelu & Nwoha (2016), is that there are incentives for all managers to signal expectations of future profits because, if investors believe the signal, share prices will increase and the firm will benefit.

2.1.2 Agency Theory

Agency theory originated from the work of Berle and Means (1932). They explored the concept of agency and the applications toward the development of large corporations. They found out how the interest of the directors and managers differ from the owners of the firm, thereby using the concepts of agent- principal to explain the genesis of those conflicts. The theory was formally propounded by Jensen and Meckling (1976) who relied on the work of Berle and Means (1932), to develop agency theory as a formal concept. They also formed a school of thought arguing that corporations are structured to minimize the costs of getting agents (agency costs) to follow the direction and interests of the principals.

The theory essentially acknowledges that different parties involved in a given situation with same given goal will have different motivations, and these differences can manifest in divergent ways. This means that there will always be partial goal conflict among parties, because efficiency is inseparable from effectiveness, and thus information will always be somewhat asymmetric between principal and agent. Agency theory is therefore concerned

with contractual relationship between two or more persons called the agent(s) to perform some services on behalf of the principal. Both the agents and the principal are presumed to have entered into mutual agreement or contract motivated solely by self-interest. The principal delegates decision making responsibility to agents (Chowdhury, 2004).

Agency theory addresses the relationship where in a contract 'one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent (Jensen & Meckling, 1976). This happens because of the separation of ownership and control, when the owner of a company or the board of directors (the 'principals') have to employ managers ('agents') to run the business and there is the need to monitor their performance to ensure they act in the owner's interest. The main concern of agency theory as proposed by Jensen and Meckling (1976) is how to write contracts in which an agent's performance can be measured and incentivized so that they act with the principal's interests in mind.

Based on the idea that employees (at any level) will have diverse goals, two main agency problems are identified which is: how to align the conflicting goals of principals and agents, and how to ensure agents perform in the way principals expect them to. These problems can occur when executives or managers make self-interested decisions and manipulate information on performance, perhaps by moving numbers around or by 'creative accounting' to present better performance figures. The solution to either of these agency problems is to ensure that executives or managers act in the best interests of the owners by increasing the amount and quality of information available to principals and making senior executives part owners of the firm through their compensation packages.

The agency theory explains better and clearer unethical practices in accounting and financial issues such as creative accounting practices. This study therefore draws on agency theory to test the relationship between real earnings management and financial performance of listed oil and gas companies in Nigeria. Agency theory is chosen because it better explains the motivation for creative accounting practices as the accountants at times corroborate with the management either to increase or decrease (inflate) financial report in order to enhance their performance. Accountants instead of rendering the accounts of their stewardship with a true and fair view rather conjoin with the boss to manipulate accounting figures thereby distorting firm's performance.

2.2 Conceptual Framework

Key concepts are reviewed in this section with a view to aiding understanding. The concepts include real earnings management and financial performance.

2.2.1 Real Earnings Management

Schipper (1989) defined REM as an alternative type of earnings management that can be achieved by changing the timing of spending in investing or financing operations with the intentions to manipulate the reported earnings. Roychowdhury (2006) defined REM as departures from normal operational practices, motivated by managers' desire to mislead at least some stakeholders into believing certain financial reporting goals have been met in the normal course of operations. These departures do not necessarily contribute to firm value even though they enable managers to meet reporting goals.

According to Gunny (2010), REM refers to managing the normal operating activities of companies to adjust earnings according to managers' targets. In contrast, AEM is achieved by using different accounting standards and policies to represent operating activities. Lastly,

Xu *et al.* (2007) provided a concise definition saying that REM was a deviation from normal operational activities to affect reported earnings.

The following is an explanation of each technique and its measurement as documented by previous researchers.

(A) Sales Manipulation: Sale activities manipulation refers to the decisions of managers to temporarily boost sales by offering easier credit terms or higher discounts on sales prices (Roychowdhury, 2006). Manipulating earnings through this method will temporarily boost sale volumes, which leads to higher earnings and a lower current period cash flow due to surplus in sales (Roychowdhury, 2006; Sun, Lan & Liu, 2014).

(B) Discretionary Expenditures: The deviation of spending discretionary expenses from normal to abnormal activities to influence reported earnings is one technique used by managers in REM. Graham *et al.* (2005) showed that managers could reduce discretionary expenses when they are likely to miss their earnings targets. Reducing such expenses will increase the reported earnings during the same period. Empirical evidence by Roychowdhury (2006) indicated that managers use R&D, selling, general and administrative (SG&A), and advertising discretionary expenses in manipulating earnings to avoid recording losses. Roychowdhury (2006) added that companies could reduce discretionary expenses to influence real earnings when these expenses do not have a direct effect on the immediate revenues.

(C) Overproduction: Overproduction refers to increasing production units to more than the expected market demand. Prior studies have documented that managers of manufacturing companies use overproduction as a technique to manage earnings (Graham *et al.*, 2005; Gunny, 2010; Roychowdhury, 2006; Tabassum, Kaleem, & Nazir, 2014). This technique allows managers to spread fixed production overhead costs on more units of production, which results in decreasing the cost of goods sold (Roychowdhury, 2006). Indeed, such reduced cost of goods sold leads to an increase in profit margins based on the assumption that other factors will remain fixed. According to Manowan and Lin (2013), the use of this technique by managers makes detection difficult for other users of accounting information.

(D) Selling of Fixed Assets: Selling fixed assets is a flexible technique used by managers to enhance reported earnings when they realise that the targeted earnings may not materialise. The literature on earnings management has shown that managers might sell fixed assets and use the gains from such selling to avoid reporting losses or low earnings or to avoid debt covenant violations (Bartov, 1993). In a study by Herrmann *et al.* (2003), firms in Japan were found to have managed earnings through selling marketable securities or fixed assets and using the gains (or losses) to adjust the actual operating income to meet forecasts.

(E) Stock Repurchases: Stock repurchases are considered one of the REM techniques. Previous studies have provided evidence that managers of companies may engage in the stock repurchases to increase earnings per share (Bens, Nagar, Skinner, & Wong, 2003; Hribar *et al.*, 2006). A study by Burnett *et al.* (2012) provided evidence that companies under the pressure of high audit quality may shift earnings management practices from accrual to REM by stock repurchases. This evidence indicates that stock repurchases can be used as a tool for managing earnings per share. Unlike the abovementioned techniques, this method of REM (stock repurchase) does not affect the reported earnings; rather, it is used to shore up the reported earnings per share.

2.2.2 Financial Performance

The concept of financial performance has not been defined in any specific manner by any study. To this end, it could be said that financial performance can be defined depending on the focus of the study. The concept of financial performance in accounting literature refers to profit, return on assets and economic value (Yazdanfar, 2013).

According to Kenton (2019) financial performance is "a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. The term is also used as a general measure of a firm's overall financial health over a given period. Analysts and investors use financial performance to compare similar firms across the same industry or to compare industries or sectors in aggregate. To that extent, there are many ways to measure financial performance, but all measures should be taken in aggregate. Line items, such as revenue from operations, operating income, or cash flow from operations can be used, as well as total unit sales. Furthermore, the analyst or investor may wish to look deeper into financial statements and seek out margin growth rates or any declining debt."

Firm financial performance is the result of management or team activities, these results are on the overall level of success during a certain period in carrying out the task. The company's financial performance is also a formal effort that has been done by a company that can measure the company's success in generating profits, so that it can see the prospects, growth, and the potential for good development of the company by relying on existing resources (Pernamasari, Purwaningsih, Tanjung and Rahayu, 2020). A company can be said to be successful if it has reached the standards and objectives that have been set (Subramanyan, 2014). Measurement of firm financial performance is one indicator used by investors to assess a company from the market price of the shares on the stock market. This study will measure firm financial performance using profit after tax.

2.3 Review of Empirical Studies

The debate on the relationship between real earnings management and financial performance has attracted less attention from accounting researchers. This is evident in the number of empirical studies conducted from both developed and developing economies over the years. Some of these empirical studies are presented below.

Prawida and Sutrisno (2021) analyzed the effect of leverage, profitability, corporate governance mechanism on earnings management by banking firms in Indonesia Stock Exchange. The quantitative research design was adopted and purposive sampling method was used to draw 32 banking firms to constitute the sample size for the study. The research applied multiple linear regression analysis method. The results show that leverage has a positive significant effect on earnings management, profitability (ROA) failed to exert a significant effect on earnings management, amount of commissioner board (BS) and audit committee (KA) doesn't have significant effect on earnings management. The study of Prawida and Sutrisno (2021) made use of a larger sample size of 32 banks and used different variables such as accrual based earnings management as the dependent variable and profitability, leverage and corporate governance mechanisms as independent variables. This present study differs by taking a sample from listed oil and gas companies in Nigeria for the period 2011-2020. The study also will take a new dimension by using real earnings management measured in terms of abnormal levels of cash flow from operation, abnormal production cost from operation and abnormal level of discretionary expenses as independent variables and return on assets as the dependent variable.

Olaoye and Akinleye (2020) investigated relationship between accrual-based earnings, real-based earnings management and firm's value of listed manufacturing companies in Nigeria. The secondary data used were collated from the annual reports of the selected listed manufacturing firms on the Nigeria Stock Exchange. The study adopted descriptive, panel least square regression technique with various diagnostic evaluation techniques. The result revealed that accrual-based earnings management measured by abnormal discretionary accrual earnings (ADA) was positively related with the firm's value of the quoted manufacturing companies. On the other hand, the real-based earnings management measured by abnormal cash flow operation activities (ACF) was discovered to be negatively related with the firm's value. The result of the individually selected quoted manufacturing companies showed that accrual-based earnings management captured by abnormal discretionary accrual earnings (ADA) and real-based earnings management proxied by abnormal cash flow of operation activities (ACF) influence firm value. While, on the other hand, accrual-based earnings management captured by abnormal discretionary accrual earnings (ADA) and real-based earnings management proxied by abnormal cash flow of operation activities (ACF) reduced firm value of the listed manufacturing companies in Nigeria. Hence, this study concluded that the practice of earnings management constructively benefits the manipulator of accounts. Both the study of Olaoye and Akinleye, (2020) and the present study are concerned with issues of real earnings management. The study was ever limited to the examination of both accrual based and real earnings management on firm value. This present study will consider testing real earnings management on financial performance. The study of Olaoye and Akinleye (2020) drew it sample from listed Nigeria manufacturing companies. This present study will draw it sample from listed oil and gas firms which hitherto have not received adequate attention by researchers.

Ubesie, Nwankwo and Nwankwo (2020) carried out an appraisal of the impact of earnings management on financial performance of Consumer Goods Firms in Nigeria. The main objective of this study was to determine the impact of Earnings Management on financial performance of consumer goods firms in Nigeria. The study adopted the ex-post facto research design and used simple regression analysis for analysing the pooled secondary data obtained from three selected consumer goods firms in Nigeria. The dependent variable in this study is financial performance proxy by Total Assets, Equity and Total liability of the firms while Earnings Management is the independent variable (proxy by Net profit or Profit for the Year). The findings show that Earnings Management does not have significant impact on financial performance of consumer goods firms in Nigeria. The study recommended that there should be conscious effort by management of consumer goods firms to improve the earnings management situation in order to impact on financial performance of the sector. The study of Ubesie, Nwankwo and Nwankwo (2020) and the present study shares similar focus. Their point of divergence lies in the following outlined facts: the study of Ubesie, Nwankwo and Nwankwo (2020) was limited to the examination of accrual based earning management while the present study will be limited real activity based earnings management. The study under review made use of data obtained from listed Consumer Goods Firms in Nigeria while this present study will made use of data drawn from listed oil and gas firms in Nigeria from the period 2011-2020.

Al-Natsheha, and Al-Okdeha, (2020) researched on the impact of creative accounting methods on earnings per share. This study was aimed at investigating the impact of creative accounting methods called "Earnings Management and Income Smoothing on earnings per share in the Jordanian industrial companies. The model of Francis et al. (2004) was adopted to measure income smoothing. In order to achieve the objectives of the study, the analytical quantitative approach was adopted. The study community consisted of the 57 industrial

companies listed on the Amman Stock Exchange (ASE). As for the study sample, 36 companies were selected according to the target sample method in the period from 2008 to 2017. The results showed that there was a statistically significant impact of using the creative accounting methods on earnings per share in the industrial companies listed on the ASE, and there was an impact of practicing both earnings management and income smoothing on earnings per share in the industrial companies listed on the ASE. The results also showed that 27.8% of the industrial companies practiced earning management, while 47.2% of the industrial companies practiced income smoothing. The study of Al-Natsheha, and Al-Okdeha, (2020) was limited to the examination of the impact of creative accounting methods measured in terms of income smoothing on earnings per share. The study was also limited to listed industrial goods firms in Jordan. This present study will take a new dimension by focusing real earnings management measured in terms of abnormal levels of cash flow from operation, abnormal production cost from operation and abnormal level of discretionary expenses on performance measured in terms of return on assets of listed oil and gas firms in Nigeria.

Pernamasari, Purwaningsih, Tanjung and Rahayu, (2020) examined effectiveness of firm performance and earnings management to stock prices. The long-term goal to be achieved in this research is to analyze stock prices by using firm's performance and earnings management in the consumption sector manufacturing companies on the Indonesia Stock Exchange. Firm performance uses profitability proxies measured through Return on Assets (ROA) and leverage measured through Debt to Equity Ratio (DER), while the proxy for earnings management used is the actual specific model, namely working capital accruals. The stock price used in this study is the stock price one week after the publication date of the 2016-2018 financial statements. Multiple regression was used in the analysis of data. The results of the study indicate that the performance of companies proxied through ROA and DER is able to have a significant positive effect on stock prices in registered manufacturing sector manufacturing companies on the Indonesia Stock Exchange. The results of this study prove that investors are very concerned about the information contained in the financial statements published by the company, especially information about profits or profits obtained by the company and the debt used by the company for its operations, while earnings management is able to give an influence but not significant on stock prices. This means that investors do not respond to information, including accruals in the financial statements. The study of Pernamasari, Purwaningsih, Tanjung and Rahayu, (2020) examined effectiveness of firm performance and earnings management to stock prices in Indonesia Stock Exchange. This study takes different direction by focusing on real earnings management and performance of listed oil gas firms in Nigeria.

Al-Zahrani, (2019) investigated the effects of managing real earnings on the profitability performance of a company. The study used secondary data where co-relational research design was employed. The study used 250 companies selected from Top 500 Companies listed on the Bombay Stock Exchange as the sample of the study. The research findings explicitly show that managing real earnings practices adversely affect the company performance together with its corporate value. The study of Al-Zahrani, (2019) contributes to the existing knowledge and literature on the relationship between managing real earnings activities and the profitability performance of a company and its corporate value. However, while his study focused on Companies listed on the Bombay Stock Exchange, this present study will focus on listed oil and gas companies in Nigeria from the period 2012-2019.

Nguyen, Nguyen and Phung, (2019) analyses the influence of real activities earnings management on firm performance of the energy listed firms on Vietnam's stock market. The data collection constitutes 29 energy companies on Vietnam stock markets (HNX and HOSE)

in the period from 2010 to 2016. The study used regression analysis in accordance with panel data, namely fixed effects model and random effects model. The results determine that real activity earnings management positively impacts on firm performance. It was also found that there is a positive association between firm size, cash from operating activities, growth opportunities and firm performance while firm leverage and tangible asset have a negative association. Nguyen, Nguyen and Phung (2019) was limited to the analyses the influence of real activities earnings management on firm performance of energy-listed firms on Vietnam's stock market. This present study though similar will differ based on geographical location. The present study will focus on listed oil and gas companies in Nigeria from the period 2011-2020.

Hauwa, Ocheni and Jamila (2017) examined the impact of earnings management on the financial performance of listed deposit money banks in Nigeria. Data was extracted from the annual report and accounts of 5 sampled banks for the period 2011-2015. Loan loss provision was used as a proxy for earnings management while return on assets (ROA) was used as proxy for banks performance. The study employed linear regression of pooled ordinary least square for data analysis. Findings from the study revealed that earnings management exist in the Nigerian Money Deposit Banks. However, the study could not establish any statistical significant impact of earnings management on ROA. It is therefore, recommended that even though the relationship between the variables are not significant, proper and adequate measures should be put in place for the evaluation, examination and scrutinization of financial statement of DMBs. Hauwa, Ocheni and Jamila (2017) study was done in 2017 while his study period was from 2011 to 2015. The time lag between 2016 to 2020 is enough for significant changes in findings to occur. In addition, the study of Hauwa, Ocheni and Jamila (2017) was limited to real earnings management measurement variables including using real earnings management measured in terms of abnormal levels of cash flow from operation, abnormal production cost from operation and abnormal level of discretionary expenses.

3.0 METHODOLOGY

The correlational research design is adopted for this study based on positivist approach. A correlation research design is used to describe the statistical relationship between two or more variables. It is most appropriate for this study because it allows for testing of expected relationships between creative accounting practices proxies and financial performance of listed oil and gas companies in Nigeria and the making of predictions regarding such relationships. The research design was based on positivist approach because positivism lends itself to a more scientific, objective and systematic approach to research, and also supports the use of quantitative methodology (Saunders, Lewis & Thornhill, 2007).

The population for this study comprised of (10) oil and gas companies listed on the Nigerian Exchange Group as at 31st December, 2020.

The judgmental sampling technique is used in selecting the sample size of the study. To this end, only oil and gas companies with complete annual report from the period 2011- 2020 were considered for the study. Mobil and Oando Plc failed to meet this criteria and thus were not considered to constitute the sample size of the study. Consequently, the working sample of eight (8) listed Oil and Gas Companies was drawn for the study as presented in Table below.

Study Sample Size

S/No	Name of Company
1	Ardova
2	Total Nigeria Plc
3	MRS Oil Nigeria Plc
4	Seplat Plc
5	Conoil Plc
6	Eterna Oil & Gas Plc
7	Japaul Oil & Maritime Services Plc
8	Rak Unity Plc

Source: NGX, 2023

3.1 Sources of Data Collection

The data for this study are obtained from secondary sources. Secondary data were extracted from the audited annual report for the sampled listed oil and gas companies for the period 2011 to 2020. The choice of secondary data is due to the fact that it is more reliable compared to primary data and easily accessible on companies' websites.

Summary of Variable Measurement

S/No	VARIABLES	CODES	DEFINITION/MEASUREMENT
1	Profit after Tax	PAT	Profitafter Tax refers to the amount that remains after a <u>company</u> has paid off all of its operating and non-operating expenses.
2	Abnormal level of Cash Flow from Operation	ALCFO	The abnormal CFO is then computed as actual CFO minus the normal level of CFO.
3	Abnormal Level of Production Cost	ALPC	The abnormal production cost is computed as the difference between the actual production cost and the value of the normal cost.
4	Abnormal Level of Discretionary Expenses	ALDE	For every firm year, abnormal discretionary expenses (Abdisexp) represent the difference between the actual discretionary expenses and normal (expected) discretionary expenses calculated using the corresponding company – year parameters.

3.2 Model Specification

The model for this study is a multiple regression model. The panel methodology was adopted since the data to be analysed has panel attributes. The basic model is formulated as:

$$PAT_{it} = \alpha + \beta_1 ALCFO_{it} + \beta_2 ALPC_{it} + \beta_3 ALDE_{it} + \epsilon \quad (1)$$

In an attempt to improve the linearity of the basic model of the study, the natural logarithm (Log) was introduced. Therefore, the final modified form of model (1) is reformulated as follows;

$$\text{LogPAT}_{it} = \alpha + \beta_1 \text{LogALCFO}_{it} + \beta_2 \text{LogALPC}_{it} + \beta_3 \text{LogALDE}_{it} + \epsilon \quad (2)$$

Where:

LogPAT _{it}	=	Natural logarithm of Profit after Tax
LogALCFO _{it}	=	Natural logarithm of Abnormal levels of Cash Flow from Operation
LogALPC	=	Natural logarithm of Abnormal Level of Production Cost
LogALDE _{it}	=	Natural logarithm of Abnormal Level of Discretionary Expenses
€	=	error item
β ₁ – β ₃	=	Coefficient of the Independent Variables.

3.3 Techniques for Data Analysis

Descriptive statistics and panel regression analysis is adopted to analyse the data. The descriptive statistics is employed to compare variables numerically and to ascertain a pattern in the data set. The descriptive statistics include the mean, standard deviation, minimum and maximum.

In addition, the inferential statistics (panel regression method) is employed to explore the relationship between real earnings management and financial performance. The combination of time series with cross section data made possible by the use of panel data regression technique, usually improve the degree of freedom and quantity of data which may not be possible when using only one of them (Gujarati, 2003).

The Hausman specification test is employed to choose the most appropriate model. The Hausman (1978) specification test is the conventional test of whether the fixed or random effects model should be used. The question is whether there is significant correlation between the unobserved unit of observation specific random effects and the regressors. If no such correlation exists, then the Random Effect Model (REM) may be more appropriate. However, when such a correlation exists, the Fixed Effect Model (FEM) would be more suitable because the REM model would be inconsistently estimated.

The formulated hypotheses was tested at 5% level of significance. A significance-value less than $\alpha=0.05$ indicates that there is enough statistical evidence to reject the null hypothesis, and thereby accept the alternative hypothesis. If significance >0.05 , then we do not have adequate statistical evidence to reject the null hypothesis or accept the alternative hypothesis.

4.0 RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive statistics are used to describe the basic features of the data used in this study. They provide simple summaries about our sample and the measures. This study employed descriptive statistics like mean, standard deviation, minimum value and maximum value as presented in Table 1.

Table 1: Descriptive Statistics

Variable	OBS	Mean	Std. Dev.	Min	Max
PAT	80	2262024	3389462	1613	1.81e+07
ALCFO	80	3.56e+07	1.75e+07	-5159926	6.73e+07
ALDE	80	9.32e+07	4.98e+07	2.14e+07	1.78e+08
ALPC	80	5.54e+08	1.38e+08	2.18e+08	8.39e+08

Source: STATA Version 11 Output

Mean represents the average value of the series, which is gotten by dividing the total value of the series by the number of observations. Table 1 displayed the mean for PAT to be ₦2,262,024 and corresponding standard deviation of ₦3,389,462. This implies that listed oil and gas firms during the period under study made a profit after tax of 2,262,024 billion with a fluctuation of 3,389,462 (i.e. taking the natural antilog) during the period under study. The minimum and maximum values of PAT during the study period stood at 1,613 and 18,100,000 respectively.

The Table further revealed an average and standard deviation value of ₦35,600,000 and ₦17,500,000 respectively for abnormal level of cash flow from operation (ALCFO). The results shows that there is a high dispersion from the mean value of ALCFO recorded within the period of study thus indicating normalcy of data in respect to ALCFO. The minimum and maximum values of ALCFO during the study period stood at ₦-5,159,926 and ₦67,300,000 respectively indicating minimal shrinkage.

Similarly, Table 1 shows that the abnormal levels of distribution expenses (ALDE) displayed a mean and standard deviation value of ₦ 93,200,000 and ₦49,800,000 during the study period. This implies that on average, the abnormal distribution expenses during the period under study is estimated at ₦93,200,000. The standard deviation indicates that there is high dispersion in the value of ALDE of listed oil and gas companies in Nigeria. The minimum and maximum values stood at ₦21,400,000 and ₦178,000,000 respectively.

Table 1 also shows that abnormal levels of production cost (ALPC) has a mean and standard deviation value of ₦554,000,000 and ₦138,000,000 respectively during the period under study. This value indicates that majority of the sampled listed oil and gas firms on average have abnormal levels of production cost to the tune of ₦554,000,000. The standard deviation indicate high deviation. The minimum and maximum values of ALPC stood at ₦218,000,000 and ₦839,000,000 respectively.

Analysis of Results

This study presents and analyses the fixed effect regression result of the explained variables proxied by PAT and the explanatory variables (ALCFO, ALDE and ALPC) of the study.

Table 2: Summary of Fixed Effect Regression Results

Variable	Beta Coef	t-values	P > Z
LogALCFO	0.203478	0.240391	0.8109
LogALDE	0.548418	1.257443	0.2135
LogALPC	0.944303	0.373672	0.7100
Constant	-8.260454	-0.377521	0.7071
R ²		0.753336	
F-statistic		9.483802	
Prob> chi2		0.000000	

Source: Researcher's Computation Using STATA, Version 11

Table 2 presents the results of the fixed effects model. The f-statistics of 9.48 which is significant at 1% (0.0000) suggests that the model is well fitted, while the coefficient of determination R^2 of 0.7533 explains the variation of the dependent variable (PAT) as a result of the changes in the independent variables. From the results presented in Table 10 above, It can be inferred that, the independent variables (proxied by ALCFO, ALDE and ALPC) have combined predictive power of 75.33% impacting on the financial performance of listed Oil and gas companies in Nigeria, while the remaining 24.67% is accounted for by other factors which are not captured in the model.

The regression result as presented above reveals a negative intercept of -8.260454. This simply implies that when all the other variables are not considered, performance of listed oil gas companies is insignificantly estimated at -8.260454 occasioned by factors not examined in this study but impact on performance of quoted oil and gas companies.

The result presented in Table 2 shows that abnormal level of cash flow from operation (ALCFO) positively impacts profit after tax (PAT) of listed oil gas companies. ALCFO has a beta coefficient of 0.203478 and p-value of 0.8109 which lies above the 5% level of significance in social sciences. This implies that a unit change in abnormal level of cash flow from operation will lead to an insignificant increase in the financial performance of listed oil and gas companies in Nigeria. This implies that abnormal level of cash flow from operation insignificantly increases the financial performance of listed oil and gas companies in Nigeria.

The result of the estimated model shows that abnormal level of discretionary expenses (ALDE) positively impacts on profit after tax of listed oil and gas companies in Nigeria. Table 2 reveals that abnormal level of discretionary expenses has a beta coefficient of 0.548418 and a p-value of 0.2135 which lies above the 5% level of significance in social sciences. This implies that a unit change in abnormal level of discretionary expenses will lead to an insignificant increase in profit after tax of listed oil and gas companies in Nigeria by 0.548418 thus indicating an insignificant positive effect.

Finally, Table 2 further revealed a beta coefficient of 0.944303 in respect to abnormal level of production cost (ALPC) and a p-value of 0.7100. This indicates that a unit change in ALPC will bring about an insignificant increase in the financial performance of listed oil and gas companies in Nigeria by 0.944303. This result implies that abnormal level of production cost insignificantly improves the performance of listed oil gas companies in Nigeria.

4.2 Test of Hypotheses

In this study, the p-values were used to test the significance of the relationship between variables. It was done at 5% level of significance. The following are the summary of findings from the test of the null hypotheses of the study.

1. Abnormal level of cash flow from operation has no significant effect on the profit after tax of listed oil and gas companies in Nigeria.
2. Abnormal production cost from operation has no significant effect on the profit after tax of listed oil and gas companies in Nigeria.
3. Abnormal level of discretionary expenses has no significant effect on the profit after tax of listed oil and gas companies in Nigeria.

4.3 Discussion of Findings

This study's first objective was concerned with examining the effect of abnormal levels of cash flow from operation on the financial performance of listed oil and gas companies in

Nigeria. The study formulated a null hypothesis in line with this objective and was tested at 5% level of significance for a two tail test. Evidence from the study showed an insignificant effect of abnormal levels of cash flow from operation on the financial performance of listed oil and gas companies in Nigeria during the period under review.

The result as presented in Table 2 revealed that abnormal levels of cash flow from operation has a positive beta coefficient thus, implying that abnormal levels of cash flow from operation has an insignificant positive effect on the profit after tax of listed oil and gas companies in Nigeria. Based on this finding, it could be concluded that real earnings management with abnormal levels of cash flow from operation insignificantly improves the financial performance of listed oil and gas companies in Nigeria. This proves that in improving the performance of the company, management is motivated to perform profit management actions through real activity on operating cash flow post. However, they do this at a negligible extent. The insignificant effect is so because operating cash flow occurs in accordance with the company's operations without any engineering from management. For example there is no engineering effort to boost cash income in order to increase profit or cash expenditures with the aim of reducing corporate profits.

Evidence from the study revealed an insignificant effect of abnormal production cost on the financial performance of listed oil and gas companies during the period under review. Further examination of the results as presented in Table 2 further revealed that abnormal production cost has a positive beta coefficient and an insignificant p-value. Based on this result, it could be concluded that abnormal production cost insignificantly enhances the performance of listed oil and gas companies in Nigeria during the period under study. This implies that, the financial performance of listed oil and gas companies is not significantly affected by management tendency to manage real activity is on post-production costs.

This was probably due to the fact that managers of listed oil and gas companies were making deliberate attempt to cut down production costs by producing goods in large quantities that will be able to reduce production costs. As a result of not cutting down the production costs, the selling price skyrocketed thus decreased sales due to low consumer purchasing power which resulted to insignificant financial performance amongst listed oil gas companies.

Finally, evidence from the test of the third objective of the study showed an insignificant effect of abnormal level of discretionary expenses on the financial performance of listed oil and gas companies in Nigeria during the period under study. Further analysis of the results as presented in Table 2 revealed that abnormal level of discretionary expenses has a positive beta coefficient with an insignificant p-value. This implies that abnormal level of discretionary expenses has an insignificant positive effect on the financial performance of listed oil and gas companies in Nigeria. Based on this finding, it can therefore be concluded that discretionary expenses insignificantly improves the financial performance of listed oil and gas companies in Nigeria. This means that the management of earnings through discretionary costs is done to improve company's performance. However, the extent to which it improves performance was insignificant. It therefore implies that if management wants to portray good performance, it must minimize earnings management to achieve the expected profit by minimizing the cost of advertising, research and development costs of the company. This result implies that listed oil and gas companies were not putting emphases on reducing business costs to overstate company's profit.

5.0 Conclusion and Recommendations

In line with the findings of the study, it is concluded that real earnings management has no significant effect on the financial performance of listed oil and gas companies when measured in terms of abnormal level of cash flow from operation, abnormal production cost from operation and abnormal level of discretionary expenses. The study recommended that management should not use real earnings management for the purpose of manipulating earnings since it has no significant effect on financial performance.

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