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Nigerian Oil and Gas Companies

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# Effect of Earnings Management on the Firm Value of the Listed Nigerian Oil and Gas Companies

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#### Abstract

The current research seeks to gather empirical data regarding the effect of earnings management on the firm value of the listed Nigerian oil and gas companies. This research is based on the data collected for a period of 13 years, that is, 2008-2020. Using the annual reports and accounts of listed oil and gas firms, data were collected through secondary sources. As of December 2020, all thirteen (13) listed oil and gas companies on the Nigerian stock exchange made up the study population. A panel data approach was used with random and fixed effect regression. The results confirmed that earnings management has a significant negative effect on firm value. This suggests that investors do recognize earnings manipulation and, as a result, it discounts the firm's value. This usually leads to a low firm value. Therefore, this study recommends that earnings management practice should be constrained effectively due to its negative effect on a firm value.

Keywords: discretionary accruals, earnings management, firm value.

#### Introduction

Earnings management is an act of blindfolding the real face of account to convey a positive image to the owners of the companies. Earnings management practice is a global phenomenon that has gained the inquisitiveness of various stakeholders. As a result, the fluctuation in firm value is associated with earnings management practice and there had been conflicting views on regarding earnings management practice that poses a threat to investors. For instance, Sensi (2007) posited that earnings management serves as a chronic disease of opportunist manager in running the company and its antidote has not yet been discovered, while Zhang et al. (2006) were of the view that fear over common misuse utilizing earnings management was unfounded in the previous studies. Likewise, the fact that

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earnings management consequences in stock price volatility as observed by Ajekwe and Ibiamke (2017); Makela (2012); Kim and Sohn, (2013); Bitner and Dolan (2014); Ajekwe and Ibiamke (2017); Pernamasari et al. (2020). There is a significant need to constraints the negative effect of earning management by an effective corporate governance mechanism.

While, it is well said, Managers are the custodian of firm resources as an agent as prescribed in Agency theory. This theory asserts that, managers are expected to do their work with diligence and care and avoid all sorts of selflessness and greed. In some cases, some managers used information at their disposal for personal gain and presented window-dressed information to the owners of the company.

As Shivakumar (2000) asserted self-centered directors aim to surge returns through increased incentives and by secreting the evidence could aid investors to unhide dubious or ineffective managerial verdicts. Strobl (2013) documented that earning management was derived through the anticipation of high payment and rewards.

Empirical research has shown a strong relationship between earnings management and firm value (Ado et al., 2020; Chan et al., 2001; Francis et al., 2005; Zadeh Darjezi et al., 2015; Mustapha, & Ademola, 2020; Strobl, 2013; Zhang et al., 2006).

Nigeria currently has a sufficient regulatory framework because of the establishment of the Financial Reporting Council (FRC) of Nigeria and the issuance of a code of corporate governance to supervise corporate organizations, including financial reporting and auditing, monitoring is proving not to be as effective as it should be. This could be confirmed on the basis of the recent happenings and corporate shames consequential in loss of going concern by several firms, examples include the situations involving Cadbury Nigeria Plc, African Petroleum Plc, Intercontinental Bank Plc, Bank PHB, Oceanic Bank Plc, and AfriBank Plc, and recently Etisalat Nigeria. This had brought auditors into sharp focus and caused the public to question the role of auditors and other corporate governance mechanisms.

Similarly, several studies had observed that the manipulations of earnings by managers to achieve higher compensation or to conceal their inefficiencies have affected the firm value, and that management of earning is associated with economic consequences (Sloan, 1996; Richardson et al.,

2002; Bao & Bao, 2004; Chen et al., 2008; Pagalung & Sudibdyo, 2010; Makela, 2012; Kim & Sohn, 2013; Bitner & Dolan, 2014). The modified Jones model was used in majority of the previous studies to observe discretionary accruals and to evaluate earnings management. Varieties of this model exist with specifications in the suitable application for this study design. To observe, the outcome of topic theme, Cvetanovska & Kerekes (2012) asserted that there is a need to control performance since the motivation for earnings management is either to conceal inefficiencies and maximize compensation during the poor performance or to be conservative during the high performance and use the reserve for contingencies or relieved past obligation from losses (big bath accounting). Therefore, it would be more acceptable to observe this association while using the modified Jones model that is performance-matched (Cvetanovska & Kerekes, 2015). Numerous studies on earning management have been conducted; however, the performance-matched modified jones model has not been employed to examine its impact on firm value.

The current study is divided into three sub-sections, the first of which is a review of the literature. The second section covers the research methodology, and the last section covers the results, analysis, and recommendations. To direct the study, a hypothesis was created based on the goals in their null form.

H<sub>01</sub>: Earnings management has no significant impact on the value of listed oil and gas companies Nigeria.

## Literature Review

# **Concept of Earnings Management**

Earning management arose as a situation when managers used dubious methods and techniques to hide the true picture of the financial reports (Healy & Wahlen, 1998). This approach was predicated on the notion that managers employed questionable means, such as managing earnings, to fulfill their own desires. Similarly, earnings management, according to Roychowdhury (2006), departs from the normal working procedures that took place through managerial involvement in the reporting method, that is, via accounting approximations and methods. Chen (2010) shared his views about earning management is a legal way which managers used to achieve efficient and effective financial reporting. Also, Godwin (2019) considered earnings management to be the application of numerical accounting data to

produce successful outcomes and provided a more accurate view of a company's financial position.

From these views, one could argue that there are both good and bad aspects of earnings management. In this, Chen's (2010) views could be perceived as a positive aspect since he considered earnings management as a rational and permissible way to directly report to the owners. Similarly, Roychowdhury (2006) perceived earnings management negative aspect by observing earnings management as a parting from legal means of reporting practices whereas Healy and Wahlen (1998) observed earnings management from both positive and negative perspectives.

Managers also utilize earnings management, according to Chen and Xan-Wing et al. (2006), to improve their incentive or reduce political or capital expenses managers employ earnings management to stabilize the financial performance of a country. By observing their views, the minimization of political or capital costs could provide advantage to companies that are perceived as positive, while those that are perceived as negative could benefit from compensation maximization, which benefit management at the expense of shareholders. Evidences of this view could be found in the work of Schipper (1989) who saw it as the process in which managers disclose certain information that they feel and hide from others to make the reports creative. Likewise, Fields et al. (2001) looked at it as a situation where management uses their will on reporting templates without limitation. This decision was exercised to maximize the firm value or for the personal gain of administrators.

From a different perspective, Dechow and Skinner (2000) categorized earnings management into two primary groups: GAAP-compliant earnings management and non-GAAP (General acceptable accounting standards) earnings management (GAAP). They termed earnings management that violates GAAP as deceitful financial reporting.

This could be considered within GAAP as so far it does not violate accrual accounting under GAAP and is assumed legal. On the other hand, Roychowdhury (2006) noted that administrators could also undertake earnings management through real activities manipulation to achieve the set target. This kind of real activity manipulation, like cuts in R&D spending, would interfere with cash flows and eventually, accruals.

It could be deduced from the above argument that the perception of what constitutes earnings management depends on the motivation behind it. That is, the action of manipulating earnings relates to motivation. Opportunistic managers are inclined to involve in earnings management since it adds to their gains, likewise, earnings management often relates to corporate objectives outside executives' gains. For example, the increase in earnings following major corporate events like IPOs (Initial public offer), mergers, and acquisitions, etc., used to mislead investors, which was a common practice for deriving the desired outcome.

This paper adopts the concept given by Schipper ( $\underline{1989}$ ) as the process in which managers disclose certain information that they feel and hide from others to make the reports creative

The argument sufficed here is that managers would try to maximize their compensation by reporting higher earnings, this would in turn result in a favourable market reaction thereby increasing shareholders' wealth. However, this market reaction tends to reverse later when the market detects earnings manipulation and subsequently, erodes shareholders' wealth. Zhang *et al.* (2006) also shared a similar view in his study, which agrees with the above literature.

## **Measures of Earnings Management**

Although, there are no perfect determinants of earnings management, studies on earnings management have been centered more on developing countries than developed countries, by employing a discretionary accrual approach. Moreover, this approach provides a clear indication of earnings management (Becker et al., 1998) and was most commonly used in accounting write-off (Defond & Subramanyam, 1998).

While determining total accruals is straightforward and a less complex process, determining discretionary accruals is a bit complex process as it cannot be observed directly (Cvetanovska, B., & Kerekes, 2015). He also observed that two ways could be used to measure total accrual, either the balance sheet or the cash flow approach. The accruals were calculated using the balance sheet approach by subtracting working capital from depreciation and amortization (WC), where total accruals are defined as:

 $TA = \Delta$  Current Assets  $-\Delta$  Cash  $-(\Delta$  Current Liabilities - Current portion of Long-Term Debts) - Depreciation and Amortization.

This measure was broadly used in accounting papers (Simko, 2009). Hribar and Collins (2002), however, argued against applying the balance-sheet method because it exaggerates the number of total accruals and affect the model, in which measurement error could be observed. This study adopts the performance-matched, modified Jones' Model to measure discretionary accruals

# **Concept of Firm Value**

The term firm value was connected to different understandings, while it is based on alternate options in economics, and reference prices on a product (Ingenbleek, 2007); in accounting, it is interpreted as the worth of an organization based on the future expectations (performance). Several studies in accounting literature had attempted to operationalize the concept of firm value suitable to their studies such as the studies of Leland and Toft (1991) suggested that a firm's value consists of the total asset and tax savings on interest on the debt.

Myers (1993) proposed that a highly geared company might be forced to reject viable projects if the returns of the project will only affect debt holders without a reasonable return to shareholders. This investment issue could damage the firm reputation in the face of its investors and deny the future investment expectations.

According to Pandey (2004), worth of a firm is the addition of the values of all its securities. That is, the sum of its equity and debt if it's a leverage firm and the value of only its equity if it is an unleveraged firm. These future expectations are regarded as the worth of the organization upon which the value of the firm is established and are determined on the basis of publicly available information being processed for accurate prediction of future returns.

Therefore, it could be observed that to determine a firm value accurately, the future returns of a firm must be predetermined. That is, a firm must have estimates of future returns and its growth rate.

## Measures of Firm Value

Literature in accounting had identified various determinants of firm value and notably, these determinants include Tobin's Q ratio, fixed valuation model, stock return, risk-adjusted return, and so on.

Each of these measures had been applied in various studies with justification for their application. Evidence could be found from Zhang *et al.* (2006), and Zadeh Darjezi *et al.* (2015), research who used Tobin's Q as a measuring tool for the firm value. According to the studies market capitalization divided by total asset is known as Tobin's Q. This model verified to have a good outcome as a measuring tool for the firm value as observed by Cvetanovska & Kerekes (2015). The perception behind the model was that firm values tend to outperform growth stocks. Additionally, this could be explained by the efficient market hypothesis, which claims that companies with a high book-to-market ratio have a higher return and, thus, a higher risk. (Shefrin, 2007). Conflicting hypotheses help to explain this market mispricing occurrence (Shefrin, 2007). The most recent research claimed that a book's ability to be published could be used to explain stock returns.

## **Empirical Studies on Earnings Management and Firm Value**

Studies on earnings management and firm value are among the front wheels in the research world. Looking at the recent collapse of many companies in the world, Zhang et al. (2006) investigated the association between two earnings smoothing techniques, accrual management, and derivative hedging in the US using two-stage leasing square regression. The study found a negative relationship between a firm value and discretionary accruals and a positive relationship with the level of used derivatives. Using two-staged leased square regression, Huang et at al. (2009) investigated the effect of anomalous accruals and derivatives on the business value. The study found an inverse relationship between the abnormal accrual and the adjusted industry Q, whereas real smoothing of financial derivatives enhances the firm value. Mahdavi Ardekani et al. (2012), in a Malaysian study, discovered that the performance of the shares of the acquiring firms was negatively correlated with earnings management, one year prior to the acquisition announcement date.

Salteh and Valipour (2012) in their study conducted in the Tehran stock market indicated a low significant opposite relationship between the weighted average cost of capital (WACC) and discretionary accruals, where an insignificant correlation between the WACC and non-discretionary accruals. Strobl (2013) examined earnings management in the determining a company's cost of capital using regression analysis and observed that overstating market value is oppositely related to earnings manipulation.

From the review of these studies, it could be observed that the findings of these studies provided an opposing view from the assertion in this study by observing that earnings management did not enhance firm value, Before contesting the views of these studies, extant literature shared a similar view with the current study; Richardson *et al.* (2002) examined future earnings and stock returns using regression thereby providing the evidence that less reliable accruals are weighed and are among the measure determinant of mispricing.

Likewise, Chen and Dhilwal *et al.* (2006) tested the forecast that the quality of accruals' impact on the rate of return rises significantly with the rise in the risk thereby, measuring the fundamental risk with market capitalization, firm age, return volatility, and trading volume using multiple regression model. According to the study, as risk increases, accrual quality's impact on rate of return increases, whereas its impact on rate of return for low-risk companies decreases.

Pagalung and Sudibdyo (2010) also employed multiple regression and univariate analysis to evaluate the economic effects of the determinants of earnings quality in the Indonesian capital market from 2005-2010. The study found a correlation between economic implications and the three aspects of earnings quality: accrual quality, smoothness, and factorial earnings quality. Similarly, regression analysis was used by Ajekwe and Ibiamke (2017) to examine the income smoothing increased or decreased value following the US passage of the Sarbanes-Oxley Act from 2006-2012, the study found that income smoothing creates worth in disparity with pre-Sarbanes-Oxley act research.

Besides, Kim and Sohn (2013) using a cross-sectional regression in the study conducted in the USA revealed that the cost of equity is positively impacted by real earnings management. Successively, using multiple regressions, Bitner and Dolan (2014) examined how income smoothing affected the value of the business. The findings showed that market does value smooth income. Equity market valuations take into account both synthetic and natural smoothing. In a likewise manner, Zadeh Darjezi *et al.* (2015) used predictive regression to examine the relationship between accruals, a metric of earnings quality, and future stock returns in the UK, and found that the relationship was both positive and significant.

From the above-reviewed studies, it evidenced that accruals are weighed deeply in forecasting future earnings resulting in substantial security mispricing (Richardson *et al.* 2002). Evidences also showed that companies that control their earnings have better earnings price multiples (Bao & Bao, 2004; Cvetanovska & Kerekes, 2015; Makela 2012) also, earnings management is associated with economic consequences (Pagalung & Sudibdyo, 2010).

In China, Thenmozhi et al. (2019) assessed excess cash drives earnings management and firm value using a fixed effect panel regression model. Earnings management was measured using Francis (1998) model and performance using Tobin's Q model. The findings showed that extra cash had a positive impact on the firm value thus, corroborating pecking order theory. Additionally, earnings management harmed firm value in China, which aligns with the efficient earnings management view. Abbas and Ayub (2019) also conducted a study to look into the 15-year period between 2003-2017 to see how Pakistani firms managed their earnings. The study used both real and accrual types to measure earning management, while firm value was measured using non-discretionary net income (NDNI) change in net income ( $\Delta$ NI) and upcoming year's cash flow. Thus, the findings suggested a positive linkage between earnings management and firm value.

Ado et al. (2020) researched the effects of profits management on the financial health of Nigerian listed companies. For the nine-year period, 84 listed companies on the NSE were used, from 2010-2018. It was found that the audit charge has insignificant impact on ROA. This demonstrates that an increase in audit fees would always improve a company's financial situation. Auditor independence had a positive significant relationship to the ROA. Hernawati et al. (2021) found that earnings management and firm value had a significant relationship in a study conducted in Indonesia from 2015-2018.

Thus, the claim made by Zhang et al. (2006) that concern over earnings management was unwarranted and could be questioned which needs proper monitoring for the serious interest. Subsequently, to posit with the findings of the reviewed literature indicating earnings management and firm value had a negative effect, it implies that successive engagement in earnings manipulation by management could lead to a significant drop in stock price which could trigger investors' lawsuits as observed by Francis (2011),

hence, the need to also curb aggressive earnings management behaviour is important.

#### Theoretical Framework

Efficient contract theory theoretical framework was employed in this study to investigate the financial performance of the listed oil and gas companies. Furthermore, the current study also aimed to comprehend and foresee the managerial accounting policy selections in different situations across companies to assist contracting efficiency of companies. Therefore, the theory assumes that directors, like investors, are lucid. Subsequently, managers might use their discretion in arriving at the profit using creative accounting to entice the owners and enrich themselves. The efficient contract theory tried to explain the contribution of accounting data to agency cost reduction. It also predicted that reporting to creditors about manager stewardship is an important source of demand for financial accountability as guarding against managers inside information advantage and possible shirking.

## Research Methodology

The current research employed a descriptive research design, considering the nature of the phenomenon which focuses more on the "what" of the research subject rather than the "why" of the research subject. The study relied on the listed companies' annual reports and financial statements. The positivist paradigm was used to anchor the current study. The thirteen (13) oil and gas companies listed on the Nigerian stock exchange were used as the study population. Data was collected through secondary sources from all of the publicly available reports of the companies' which had covered twelve-year period from 2007-2020. The choice of 2007 as a base year is due to the nature of the period, which is characterized due to the up-rise in the oil prices, defining the business cycle of the industry and provide interesting insight into the valuation implications of cash flow and earnings volatility during different economic trends and market sentiments.

The dependent variable, or the firm value, was determined as the market value to equity book value ratio (market value/book value), in accordance with a corresponding write-off (Makela, 2012; Martinez & Moraes, 2014).

A performance-matched, modified Jones' Model was employed to determine discretionary accruals. The performance-matched modified Jones model, according to Cvetanovska, B., & Kerekes (2015), was more

suitable for observing earnings management and then controlling the firm's performance. Similar to this, Kothari et al. (2005) created performance-matched discretionary accruals measures to reduce the influence of the performance on measured discretionary accruals. The hypothesis holds that companies with extreme performance either at initial or higher stages, engage in more income stability process and hence have more discretionary accruals, necessitating the necessity for the performance control. The provided model is below;

$$TACC_{it} = \alpha + \beta_1(1/TA_{t-1}) + \beta_2(\Delta REV_{it} - \Delta REC_{it}) + \beta_3(PPE_{it}) + \beta_4(ROA_{it}) + E_{it}$$

Where;

 $TACC_{it}$  = total accruals,

 $TA_{t-1} = \text{total assets in year } t - 1$ ,

 $\triangle REV_{it}$  = change in revenue,

 $\triangle REC$ = change in accounts receivable,

PPE = property, plant, and equipment,

ROA = return on asset

The discretionary accrual was estimated using the residual value or error term (t) and was used as input for measuring earnings management in the study after estimating  $\beta$ 1,  $\beta$ 2,  $\beta$ 3, and  $\beta$ 4.

The models for the current study are specified below;

$$MBV_{it} = \beta_0 + \beta_1 DA_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 AGE_{it} + \beta_5 BI_{it} + \beta_6 BO_{it} + E_{it} \quad . I$$

Where;

MBV= ratio of the firm's book value to its market value

DA = discretionary accruals

SIZE= Measured as a dummy variable, audit firm size is 1 for major four audit firms and 0 otherwise.

LEV= the natural logarithm of the firm's total asset size

AGE= Firm Age

BI=Board Independent

## BO=Board ownership

 $\beta_0$  = the intercept (the expected value of dependent variable when independent variables = 0)

 $\beta_1, ...., \beta_7$  = the independent variable's coefficient (the anticipated shift in the dependent variable that would result from a shift of one unit in the independent variables)

E= residual error term

*i*= individual firm

*t*=period

#### **Result and Discussion**

## **Descriptive Statistics**

Table 1 below shows the results of descriptive statistics.

**Table 1**Descriptive Statistics of the Variables

Variables	OBS	Mean	Std. Dev.	Min	Max
MBV	122	6.4434	15.0623	-0.11	118.32
DA	112	-0.0632	0.2751	-1.9499	0.6868
SIZE	122	7.5835	0.7608	5.25	9.03
LEV	122	0.7841	0.6912	0	7.782
AGE	123	25.7398	11.6667	1	48
BI	123	59.3814	18.1586	0	90
ВО	123	15.2002	24.5123	0	85

Source: The results of descriptive statistics using STATA 14.0

The tested, listed Nigerian oil and gas companies have an average market to book value ratio of 6.4434, according to Table 1, with a minimum ratio of -0.11 and a maximum ratio of about 118.32. The market to book value ratios of the various companies differs significantly, as evidenced by the standard deviation's (15.0623), which is larger than the mean value. A mean of -0.06323, a minimum of -1.9499, and a maximum of 0.6868 are displayed for discretionary accruals. The standard deviation number of

0.2751, which was greater than the industry average, suggested that there was a significant fluctuation in the companies' earnings during this period. The average total size of the company as proxy by log of assets was 7.5835. Additionally, it shows that for all of the listed oil and gas companies over the course of the current study, the values should fall between 5.97 and 9.03 on the scale. The listed oil and gas companies' low variation in total assets was also demonstrated by the standard deviation, which is less than the mean value of 0.7608.

With a minimum value of 0 and a maximum value of 7.782, leverage displays a mean value of 0.7841. The fact that the standard deviation for the listed oil and gas companies is 0.6912, which is lower than the mean value and points to a modest variance in leverage among them. Age was detected as having a mean value of 25.7398, which suggests that the companies' average age is around 26 years. For all of the listed oil and gas businesses during the study period, the minimum value of 1 year and a maximum value of 48 years was recorded. The value of the standard deviation, which was 12 years lower than the mean value, also suggested that there was less age diversity across the organizations. The corporations' boards' independence had a mean score of 59.3813. Additionally, it specified a range of 0-90 for each of the listed oil and gas businesses over the course of the study. The value of the standard deviation, which was 18.1586 and less than the mean value, further suggested that there was less fluctuation in board independence across the listed publicly traded oil and gas companies. The average board ownership was 15.2002, with a minimum value of 0 and a maximum value of 85. The studied listed oil and gas companies showed significant variance in board ownership, as shown by the standard deviation's value of 24.5123, which was larger than the mean value.

# **Correlation Analysis**

Table 2 shows the correlation coefficients between the dependent and independent components. The correlation coefficient has values between 1 and 1. The correlation coefficients on the major diagonal are all 1.0 since each variable has a perfect positive linear relationship with itself.

Table 2 shows the correlation coefficients between the firm value and discretionary accruals, leverage, age, board independence, and board ownership are 0.3393, 0.1371, 0.0805, 0.2303, and 0.4214, respectively.

Additionally, with a correlation coefficient of 0.6332, there is a significant and favorable correlation between the company value and size.

 Table 2

 Correlation Matrix of the Dependent and Explanatory Variables

1.000

Source: The result of the Correlation Matrix using STATA Version 14.0.

# **Diagnostic Test**

Multicollinearity test was carried out to check the high correlation between independent variables, which would mislead study results. The Variance Inflation Factor (VIF) and tolerance test were carried out to test for Multicollinearity in the model. The VIF and tolerance estimates were consistently smaller than ten (10) and one (1), respectively, for the model. To further substantiate this, the mean VIFs of 1.25 was taken, which was smaller than ten (10) for the model. This indicated that multicollinearity was not a problem (Tobachnick & Fidell, 1996).

The Breusch-pagan/Cook-weisberg test for heteroskedasticity was carried out and the results for the model revealed that errors have no constant variance (Heteroscedastic), which also indicated that there was presence of heteroskedasticity. This was evidenced by the significant prob>chi2 values of 0.0000, for the investigated model, which was later corrected by running a robust regression.

Hausman specification tests were conducted for the model to choose between GLS fixed and random effects. The null hypothesis showed that fixed effect is preferable for the model results, which showed prob>chi2 values of 0.0035, indicating that fixed effect regression is preferable. Thus,

F-test was used in order to choose between pooled ordinary least square (OLS) and fixed effect regressions. Later, it was highlighted that the fixed effect regression model was preferable for the suggested hypothesis.

## GLS (FE) Regression Result Interpretation

The impact of earnings management value of the sampled listed Nigerian oil and gas companies are explained in this section. Table 3 displayed the results of the data.

**Table 3** *Regression Result for Model I* 

Variables	GLS(FE)			
Constant	-11240.7***	(-4.16)		
DA	-2125.87***	(-2.60)		
SIZE	3232280***	(5.90)		
LEV	-3199.34***	(-2.76)		
AGE	5561.68***	(3.40)		
BI	271.506***	(2.69)		
ВО	65.332	(1.00)		
Obs	111			
Hettest	0.0000	0.0000		
F-Test	0.0000	0.0000		
$R^2$				
Within	0.3634	0.3634		
Between	0.4493	0.4493		
Overall	0.3632	0.3632		
F	8.94	8.94		
Sig	0.0000	0.0000		

*Note.* The symbols (\*\*\*), (\*\*), and (\*) denote 1%, 5%, and 10% significant levels, respectively; the other figures are coefficients, while the t-values are shown in parenthesis. Source: result output from STATA 14.0

According to the results of the fixed effect regression model, the overall R<sup>2</sup> value, which represents the various coefficients of determination, is 0. 3632. This value represents the proportion of total variation in the dependent variable that is jointly, explained by the explanatory factors.

Table 3 also displays the F-statistics value of 8.94 and the corresponding p-value of 0.0000. The p-value of 0.0000 implies that the correlations between the variables were not coincidental, hence the results of the regression model is accepted.

With the coefficient and t-value (ceff=-2125.87, t=-2.60), Table 3 demonstrates that discretionary accruals have a negative and substantial impact on the firm value at 1%, 5%, and 10% levels of significance. The control variables age, size, leverage, and board independence have significant effects on the firm value, as shown in Table 3, with coefficient and t-values of (ceff=65.33211, t = 1.00), (ceff = -3199.341, t = -2.76), (ceff = 5561.994, t = 3.4), and (ceff = 271.5058, t = 2.69). On the other hand, board ownership has an insignificant relationship with the firm value.

Considering the findings for all the variables, the current study tests the null hypothesis one (1) that earnings management has no significant impact on the value of the listed oil and gas companies in Nigeria. According to the GLS (FE) regression results in Table 3 (ceff=-2125.37, t = -2.60), the current study rejects the null hypothesis because discretionary accruals have a negative and significant influence on firm value at the 1%, 5%, and 10% levels of significance. This suggest that managing earnings have a negative and considerable impact on the company's value. Demonstrating that investors have access to enough data to detect that companies are using accrual earnings management. As a result, they devalue the worth of the company. This is in corroboration with Francis (2011), noting that earnings management could lead to a significant drop in stock prices and it may trigger investor's lawsuit. Similarly, Bitner, and Dolan (2014) noted that equity market valuation does count in earnings management. These results support the findings of Chan et al. (2001), Zhan et al. (2006), and Pagalang and sudibdyo (2010), among others.

#### Conclusion

The study examined effects of earnings management on a firm value in the Nigerian oil and gas industry. Findings of this study provided evidence that earnings management had a negative and significant effect on the firm value. This implies that investors' detect earnings management and discount the firm value. This usually leads to a low firm value. The findings of the current study are in consistent with the findings of Pagalang and sudibdyo (2010); Francis (2011) and Bitner and Dolan (2014) study.

## Recommendation

This study offered an empirical proof of how earnings management affects a firm value. Furthermore, this study recommended the following suggestions in line with its findings. Earnings management tactics should be successfully restricted because they have a negative influence on a company's value.

#### Reference

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