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Article

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Original Research Article

Moderating Effect of Free Cash Flow and Managerial Ownership on Earnings Management of Listed Conglomerate Firms in Nigeria

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Abstract

Financial reports, which ordinarily should provide a true and fair view of the firm's performance and financial status as of the reporting date, are manipulated due to the opportunistic behaviour of some managers. The separation of ownership and control forms the basis of divergent motivation between stockholders and management, resulting in a conflict of interest and agency costs. The management tends to abuse their trust in the presence of excess cash flow in a firm to pursue personal interest while reporting good financial performance. Managerial ownership is considered an important component of ownership structures to mitigate the conflict between managers and shareholders. This study examined the moderating effect of managerial ownership on the relationship between free cash flow and earnings management of conglomerate firms listed on the Nigerian Stock Exchange as at December 31 2017. The study was conducted on all 6 conglomerate firms listed on the Nigerian stock exchange from the period 2005 to 2017. The study used a correlational research design and secondary data from the firms' annual reports and accounted for the periods. Multiple regression was employed in analysing the data. The results showed that free cash flow has a positive and significant effect on earnings management. Managerial ownership has a negative and significant effect on earnings management. In comparison, managerial ownership interaction with free cash flow on earning management has an insignificant negative effect. The study concludes that managerial ownership may likely reduce earnings management in the presence of free cash flow in listed conglomerate firms in Nigeria. Based on the study's findings, it is recommended that managers be encouraged to increase their shareholdings in the firms to better align their

interests with that of other shareholders and reduce their opportunistic tendencies. Also, shareholders and management should exercise good governance practices to identify viable investment projects into which excess cash flow may be channelled to reduce the managers' motivation for opportunistic behaviours.

Keywords: Free Cash Flow, Earnings Management, Managerial Ownership, Conflict of Interest.

JEL Classification Codes: M40

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1. INTRODUCTION

The separation of ownership and control in todays' business world raises serious concerns and give rise to a conflict of interest between the shareholders and the management. The management are expected to pursue firms' growth towards the maximisation of the interest of its stakeholders and as well report the result of their stewardship. However, conflict of interest creates the possibility that the management will not act in the best interests of the shareholders. These days, reports on firms' performance are grossly falsified to enhance published financial statements artificially. Financial information that ordinarily should provide a true and fair view of a firm's performance and financial status as at the reporting date is manipulated due to the managers' interest (Uwuigbe, Ranti, & Bernard, 2015). Consequently, the public, especially the shareholders, are misled and have since lost confidence and trust in the integrity of accounting information reported to them.

Firms report robust and excellent performance in their financial reports and accounts, and not long from such good reports, they go distressed and collapsed. Hence, one wonders whether the reports are credible and reliable in their reflection of the firm's performance or are mere manipulating accounting numbers to mislead their stakeholders in decision making. The managements have incentives to manipulate the earnings to maximise their wealth and possibly the company. Thus, the financial report presented to the shareholders may not reflect the company's true position and, on the other hand, may encourage fraud and material misstatement by the reporting companies as this involves a higher degree of managerial judgment. This led to growing attention by researchers

on the quality of earnings reported by management after the global corporate financial scandals around the world (Al-Dhamari & Ismail, 2014).

The manipulation of earnings known as earnings management occurs when managers use their judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence their contractual outcomes that depend on reported accounting numbers. The separation of ownership and control forms the basis of divergent self-interest motivation between stockholders and management. Both seek to maximise their utility and self-interest, this causes conflicts. However, since the managers have effective control of the firm, they have the incentive and the ability to derive more benefits at the expense of the shareholders. The costs associated with the divergence of interest between the shareholders and the managers are referred to as agency costs which consist of; the monitoring cost by the shareholders, the bonding cost by the management and losses associated with the sub-optimal decisions of the management.

One situation that could lead to a conflict of interest between management and shareholders is when the firm has excess cash flow in hand with no available profitable investment opportunities. The management tends to abuse the free cash flow, which results in increased agency costs, inefficiency in resource allocation and wrongful investment in projects with negative net present value. The implication is that the excessive free cash flow situation encourages unnecessary management waste and inefficient resource utilisation (Jensen 1986). Free cash flow is one of such critical economic conditions under which firm manager's exhibit behavioural patterns that may have a severe financial implication on firm survival and profitability.

The opportunistic behaviour of managers has brought down big corporations which were earlier considered be "too big to fail" to a state of total collapse. Evidence of the failure of such financial giants includes the case of Xerox in the year 2000, Enron Corporation in 2001, WorldCom in May, 2002, Tyco in 2002 and many others and led to the enactment of the Sarbanes-Oxley Act of 2002. Other cases include Citibank in 2005, American International Group (AIG) in 2005, Lenman Brothers in 2008, Saytam in 2009, Toshiba in 2015 and Kobe steel in 2018, among others. These corporations initially commanded strong financial respect by their appearance to have provided sound financial performance. However, it was later discovered that they were engaged in earnings manipulations to produce attractive economic outcomes (Litt, Sharma, & Sharma 2013).

Similarly, in Nigeria, some managers were involved in serious financial crimes by Chief Executive Officers of some banks like Oceanic Bank International Nigeria Plc, Intercontinental Bank Plc, Bank PHB Plc, Afribank Nigeria Plc, Finbank Plc, and Equitorial Trust Bank Ltd, leading them to financial distress and liquidation (Sanusi, 2010). These crimes include window dressing of accounts, embezzlement, creative accounting, insider trading and lots more. Furthermore, the financial scandal of Cadbury Nigeria Plc in 2006 provides evidence of earnings manipulation. It was alleged that the company's management deliberately overstated their financial position over a number of years ranging

between 13 billion to 15 billion Naira (Ajayi, 2006; Sunday Times, 2007).

In an attempt to reduce conflicting interest between the owners and managers of businesses as well as guaranteeing an improvement in the quality and reliability of financial reports produced by the firm, various governments and regulators around the world have been focusing on corporate governance and ownership structure components (managerial ownership, institutional investors, and block-holders). Some studies indicate that managerial ownership influences the monitoring mechanism a firm adopts including monitoring earnings management practices (Dalton et al., 2003; Gulzar & Wang, 2011; Liu, 2012). Jensen (1986) believes that shareholders can reduce divergences from their interests by establishing appropriate incentives for the managers designed to restrict the aberrant activities of the management. Managerial ownership is considered an important component of ownership structures to mitigate the conflict between managers and shareholders. In Nigeria, there is legislative support for this issue. Managerial ownership disclosure is a stipulation of the Companies and Allied Matters Act, 2020 and the Code of Corporate Governance 2007 (as amended), which should be adhered to by all Listed Companies.

In developed economies, a reasonable research effort was made in respect of the relationship between free cash flow and earnings management. These include the works of; Jones and Sharma (2001), Chung, Firth and Kim (2005), Mehdi, Ines, Tawhid and Faten (2016) carried out in Australia, the United States of America and France, respectively. Similarly, in developing economies, some studies have examined this relationship. These include the works of; Bukit and Iskandar (2009) and Fabricio, Cardoso and Arildelmo (2014) carried out in Malaysia, India, Brazil and Iran, respectively. However, Nigeria is different from these countries in terms of micro and macro-economic realities, legal and environmental issues, institutional arrangements and corporate governance mechanism sophistication, which may constitute a motivating factor for earnings manipulation.

This study attempts to empirically examine the moderating effect of managerial ownership on the relationship between free cash flow and earnings management of firms in Nigeria. The domain of the study is listed conglomerate firms in Nigeria. The motivation for choosing conglomerates firms is that they constitute firms that are critical to the development of the country's real economic sector in Nigeria. It was also revealed that large-scale multi-faceted earnings management is associated chiefly with conglomerates. Due to their unique structure, they can transfer profitable or toxic assets to/from their subsidiaries, related party transactions and so on (Mehta & Srivastavaare 2009; Yero & Shehu, 2013).

The main objective of this study was to empirically examine the effect of free cash flow and managerial ownership on earnings management of listed conglomerate firms in Nigeria. The other objective is to investigate the moderating effect of managerial ownership on the relationship between free cash flow and earnings management of listed conglomerate firms in Nigeria. In line with the objectives of the study, it was hypothesised that; free cash flow has no significant effect on earnings management of listed conglomerate firms in

Nigeria, managerial ownership has no significant effect on earnings management of listed conglomerate firms in Nigeria and managerial ownership has no significant moderating effect on the relationship between free cash flow and earnings management of listed conglomerate firms in Nigeria. The study will cover the period of 13 years from 2005 to 2017, shortly after introducing the Codes of Corporate Governance by the Nigerian Securities and Exchange Commission in 2003 and revised in 2011. The codes ensure the disclosure of managerial ownership in the annual report and accounts of firms in Nigeria.

2. LITERATURE REVIEW

Earnings management is seen as the manipulation of records to report sound financial performance over a given period. According to Schipper (1989), earnings management also referred to as "disclosure management" is a situation where management purposefully intervenes in the external financial reporting process to obtain some private gains. The Certified Fraud Examiners (1993) view earnings management as "the deliberate misrepresentation of the financial condition of an enterprise accomplished through intentional misstatement or omission of amounts or disclosure in the financial statement to deceive financial statement users". This view considers earnings management as a fraudulent activity of management being accomplished through deception.

There are various foundational managerial motivations to manage earnings. These include situations when a company makes a loss in the preceding accounting year; Influencing short-term stock prices and fulfilling capital market expectations amongst others. Dechew and Sloan (1991) revealed that chief executive officers in their later years in office reduce expenditures on research and development with a view to increaseing reported earnings. They argue that this behaviour characterises the short term nature of many chief executive's compensation plans. Furthermore, their study provides support that at least some managers engages in earnings management practices in order to accelerate bonus awards or to secure their jobs.

According to Iturriaga and Hoffmann (2005), earnings management may emerge due to agency problems. Managers could manage earnings to window dress financial reports to improve their position, obscuring facts that stakeholders should know or influence contractual outcomes dependent on reported accounting numbers. Furthermore, Roman (2009) opined that "earnings management occurs when management has the opportunity to make accounting decisions that change reported income and exploit those opportunities".

The availability of excess cash at the management's disposal in a firm known as free cash flow (*FCF*) is one factor that avails the management with means of earnings manipulation. According to Bangi, Medan and Shah (2012), free cash flow can be viewed as the amount of cash flow above required for investments in profitable projects or those with positive net present values when discounted at the relevant cost of capital. Also, free cash flow is internally generated capital, which can be used when companies cannot obtain external funds due to an inefficient or imperfect market or information asymmetry between the management and capital providers. In the view of Masky and Chen (2012), *FCF* means not just cash flow that is cost-free but also the cash flow that the manager has the

discretion to do whatever it wants with provided their actions may not result in the firm getting out of business. This could lead to suboptimal decisions by management.

FCF can be seen as the discretionary accruals that management presents in financial reports. According to Lehn and Poulsen (1989), *FCF* is defined as net operating income before depreciation expenses, after-tax expenses, interest expenses, and stock dividends, divided by the total book value of the company's asset in the previous year. Copeland (1995) defined free cash flow as "the operating income after tax plus non-cash expenses after deducting the investments on working capital, property, plant, equipment and other assets". This view is similar to the definition of Len and Poulson (1989), with little modification to take care of asset replenishment expenditures. Mehdi, Tawhid and Faten (2016) free cash flow was viewed as the sum of the surplus funds available after funding profitable projects. These definitions appear to be very clear and can be identified in the financial reports of the firms. Thus, it is the most widely used in most literature on free cash flow and is the definition adopted in this study.

Jensen (1986) observed that in firms with high free cash flows and low growth levels, the managers are often encouraged to apply these funds to satisfy their self-motivation against the maximisation of the shareholders' interest. Jensen theorised that managers invest the surplus funds in investments having negative net present value rather than sharing the free cash flows among shareholders, consequently reducing the market value of the firms. As such, managers of these firms make an effort to manipulate the present situation by using discretionary accruals to increase earnings to realise their self-motivations.

The presence of free cash flow in a firm increases earnings management and conflict of interest between the shareholders and the management. Jensen (1984) opined that corporate governance practice in managerial ownership could address this conflict. Davies Hillier and McColgan (2005) believed that managerial ownership was the manager's stake in a firm, including all board members, share ownership. Juliarto, Tower, Zahn and Rusmin, (2013) define managerial ownership as a "percentage of shares held by insiders, such as CEO and directors". From the above definitions, it appears Juliarto et al. (2013) provides a more statistically significant view of the concept as it measures managerial ownership as a ratio of manager's ownership to total ownership of the firm.

Some studies suggested that managerial ownership is influential in reducing earnings management (alignment of interest hypothesis). Managers with a high ownership interest in the firm are less likely to alter earnings for short term private gains at the expense of outside shareholders. Managers whose interest is consistent with shareholders are more likely to report earnings that reflect the underlying economic value of the firm. Similarly, in all models, Sandra (2012) documented that managerial ownership is significantly negatively related to earnings management, which is consistent with the alignment of interest hypothesis; the negative relationship suggests that the higher managerial ownership, the lower the magnitude of discretionary accounting accruals.

Managers' stake in the firm's capital could play the role of an insider in ensuring that free cash flow is only utilised for the long-

term gains of the company, which maximises the interest of the shareholders. Agency theorists believe that managerial ownership would provide inputs into the process of decision making in a firm (Jensen & Meckling, 1976). Alignment theorists specifically state that insider ownership helps align the managers' interest with that of the owners (Ang., Cole & Lin 2000; Jensen & Meckling, 1976; Singh & Davidson, 2003). Managerial ownership is believed to play an active monitoring role in using the company's free cash flow to ensure that only projects having value-added attributes are executed. Warfield, Wild, & Wild (1995) uncovered that managerial ownership is positively associated with the informativeness of accounting earnings. They provide evidence that the association between stock returns and accounting earnings was significantly more significant for firms with higher managerial ownership.

Jaggi and Gul (2000) revealed a direct positive relationship between earnings management (discretionary accruals) and high free cash flows in low growth firms. In another study, Mehdi et al. (2016) empirically examine free cash flow and earnings management: the moderating role of governance and ownership from the French perspective. The result revealed that the percentage of capital held by managers and free cash flow level was found to have a positive relationship. However, according to the findings of Warfield et al. (1995), managerial ownership has a significant negative effect on earnings management in a free cash flow situation. This implies that managerial ownership has a reducing moderating impact on the managers' propensity to engage in earnings practices in a free cash flow situation.

Raeisi and Vaez (2016) conducted a study in Tehran covering the period 2009 to 2015, using the information of 170 companies chosen by systematic elimination sampling method; the study results indicate that there is a significant positive relationship between free cash flow and earnings management. It was further revealed that managerial ownership interacting with Free Cash Flow (*FCF*) significantly decreases the relationship between free cash flow and earnings management. Rezizadeh and Talebnia (2016) have similar findings. This implies that in a free cash flow situation, an increase in managerial ownership reduces the motivation of the managers for earnings management practices.

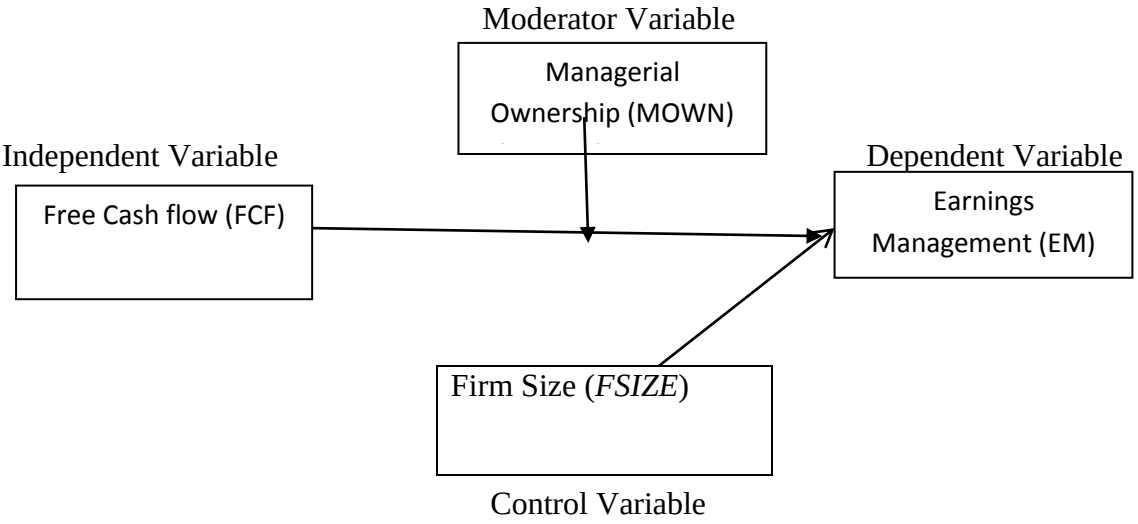
The presence of free cash flow is one source of conflict between Shareholders and the management of a firm. The emphasis is on the misuse of free cash flow by management. Jensen first mentioned the free cash flow hypothesis in 1986. This hypothesis implies that excessive free cash flow situation encourages unnecessary management waste and inefficiency in allocating resources (Jensen 1986). In addition, agency theory provides a robust theoretical framework for analysing the behaviour of managers in firms' studies. The theory argued that the separation of ownership and control forms the basis of divergent self-interest motivation between stockholders and management. The concept of Agency theory formalised by Jensen and Meckling (1976) provides a framework to examine contractual relationships when one party, the principal, engages another party, the agent, to delegate responsibility to the latter. It was modelled to explain the relationship between the shareholders and the management of firms similar to one between a principal and an agent. Therefore

this study is under fined on agency theory and the free cash flow hypothesis.

Modelling Framework

Based on the theoretical and empirical review, a framework has been developed on the study's variables. The reviews suggest that managerial ownership may reduce the managers' motivation for earnings management; hence, the introduction of managerial ownership to moderate the relationship between free cash flow and earnings management. It proposes that free cash flow has a positive relationship with earnings management. The model comprises four variables; free cash flow, earnings management, managerial ownership and firm size *(figure 1).*

Figure 1: Modelling Framework



Source: Adapted from Popoola, Ratnawati & Hamid (2016)

3. METHODOLOGY

This study adopted the correlation research design. In line with the positivist approach, the strategy adopted is considered adequate and appropriate because it allows for testing the expected relationships between free cash flow, moderating role of managerial ownership and earning management of listed conglomerate firms in Nigeria. It gives room for the quantitative data collection on the study variables and analysing same using descriptive and inferential statistics. The population and sample of the study consist of all the six (6) conglomerate firms listed on the Nigerian Stock Exchange as at December 31 2017 *(appendix I)*. Thus, the study adopted a census sampling. Data for the analysis was obtained from the annual reports and accounts of the listed conglomerate firms in Nigeria for 13 years from 2005 to 2017. The panel multiple regressions were adopted to test the hypotheses of the study empirically. This is because it helps assess the relationship between free cash flow and earnings management of listed conglomerate companies on the Nigeria Stock Exchange. Unbalanced panel data methodology was used as it has the feature of both time series and cross-sectional.

To examine the effect of managerial ownership on the relationship between free

cash flow and earnings management of listed conglomerate firms in Nigeria, this study has earnings management as the dependent variable. In contrast, the independent variable is free cash flow, managerial ownership as a moderating Variable and Firm Size as a control Variables. Table 1 below shows the variables of the study, their measurements and sources.

Table 1. Variable Measurement

Variable/proxy	Measurement	Source
Earnings Management (*EM*)	Discretionary Accruals Residuals	Kothari et al. (2005)
Free Cash Flow (*FCF*)	Operating Income before depreciation, after-tax expense, interest payable, preferred & common stock dividend divided by the book value of the company's asset	Lehn and Poulson Model (1989)
Managerial Ownership (*MOWN*)	% of Total shares held by Directors	Farouk and Bashir (2017)
FCFMOWN	Free Cash Flow interacted with Managerial Ownership of firms	Reza and Ghodratalah (2016)
Firm Size (*FSIZE*)	The Natural log of total Assets	Popoola, Ratnawati& Hamid (2016), Farouk and Bashir (2017)

Source: Compiled by the Author, 2019

Earnings Management Measurement

The study adopts the performance-based Jones accrual model considered by scholars as to the best choice among other models in estimating earnings management (Kothari, Leone &Wasley, 2005). The study runs multiple regressions on the panel data with total accruals as the dependent variable. The residual values from this regression model give the absolute values of discretionary accruals representing the extent of opportunistic earnings management.

The model is specified as follow:

$$TA_{i,t}/A_{i,t-1} = \alpha_0(1/TA_{i,t-1})+\alpha_1[(\Delta REV_{i,t}- \Delta REC_{i,t})/A_{i,t-1}]+\alpha_2(PPE_{i,t}/A_{i,t-1})+\alpha_3(ROA_{i,t-1})+\varepsilon_{i,t}$$

Where;

$TA_{i,t}$ = total accruals of firm i in year t (total net income-cash flow from operations)
$A_{i,t-1}$ = total assets at the beginning of the period of firm i
$\Delta REV_{i,t}$ = change in sales between year t and year t-1 of firm i
$\Delta REC_{i,t}$ = change in receivable between year t and year t-1 of firm i
$PPE_{i,t}$ = gross value of fixed assets in year t of firm i
$ROA_{i,t-1}$ = ratio of net Income of firm i to total asset at the beginning of the period

α_0 = constant
$\alpha_1, \alpha_2, \alpha_3$ = coefficients
ε_{it} = residual (prediction error)

Free Cash Flow Measurement

Free cash flow - *FCF* as defined by Lehn and Poulson model (1989) was adopted for this study. *FCF* was measured as operating profit before depreciation, after-tax expense, interest payable, preferred and common stock dividends divided by the total book value of the company's asset. The model is specified as follow:

$$FCF_{i,t} = (INC_{i,t} - TAX_{i\,t} - INTEP_{i,t} - PSDIV_{i,t} - CSDIV_{i,t}) / A_{i,t-1}$$

Where:
$FCF_{i,t}$ = free cash flow of firm i at year t
INC_{it} = operating income before depreciation of firm i at year t
$TAX_{i,t}$ = total taxes of firm i at year t
$INTEP_{i,t}$ = interest expense of firm i at year t
$PSDIV_{i,t}$ = preferred stock holders' dividends of firm i in year t
$CSDIV_{i,t}$ = common stock holders' dividends of firm i at year t
$A_{i,t-1}$ = total assets carrying value of firm i in year t-1

Model Specification

The dependent variable for this study is earnings management proxy by Discretionary Accruals as measured by Kothari et al. (2005). This model is considered more relevant because it clearly explains earnings management to stakeholders and other prospective investors that need information concerning the firms. The study would employ free cash flow as an independent variable and managerial ownership as a moderator. The model below was adopted based on logical and extant literature in testing the hypotheses of the study.

$$EM_{i,t} = \alpha_O + \alpha_1 FCF_{i,t} + \alpha_2 MOWN_{i,t} + \alpha_3 FCFMOWN_{i,t} + \alpha_4 FSIZE_{i,t} + e_{i,t}$$

Where;

$EM_{i,t}$ = earnings management of firm i at year t

$FCF_{i,t}$ = free cash flow of firm i at year t

$MOWN_{i,t}$ = managerial ownership of firm i at year t
$FCFMOWN_{i,t}$ = moderation of free cash flow with managerial ownership of firm i at year t
$FSIZE$ = firm size of firm i at year t
α_0 = constant
$\alpha_{1,2,3,4,}$ = coefficient of the regression model
it = firm and time

e = error term

The robustness tests were conducted to improve the validity of statistical inferences. These comprise normality, multicollinearity, heteroscedasticity and Hausman tests.

4. ESTIMATION RESULT AND DISCUSSION

Correlation Matrix

Table 2: Correlation Matrix

Variables	EM	*FCF*	*MOWN*	*FCFMOWNS*	*FSIZE*
EM	1.000				
FCF	0.6437	1.000			
MOWN	-0.0562	0.1531	1.000		
FCFMOWN	0.2541	0.4125	0.0811	1.000	
FSIZE	0.0762	0.1627	0.3084	-0.0923	1.000

Source: Correlation matrix result using STATA 13.0

Table 2 displayed the Pearson correlation coefficient between all pairs of variables in the study. Table shows the relationship between the dependent, independent, moderator and control variables under study. The correlation matrix in Table 2 indicates a positive and robust relationship between earnings management (EM) and free cash flow from the correlation coefficient of 0.6437. The result suggests that earnings management will likely increase with an increase in the free cash of the firms. However, there is a negative and weak correlation between earnings management and managerial Ownership (*MOWN*) from the correlation coefficient of -0.0562. The negative coefficient implies that earnings management likely decreases with an increase in managerial ownership.

Further, the table shows a significant positive relationship between *FCFMOWN* and earnings management, as demonstrated by the correlation coefficient of 0.2541. Implying that earnings management increases with the interactive variable *FCFMOWN*. However, the relationship is weak even though it is significant. Concerning the control variable, the table shows that firm size (*FSIZE*) has a positive and weak correlation with earnings management with a coefficient of 0.0762. Considering the correlation coefficients among the independent variables, the result shows no problem of harmful multicollinearity among the independent variables as all the correlation coefficients were below 0.80.

Test of Hypotheses

To test the hypotheses of the study certain robustness tests were conducted. The result of Breusch- pagan / Cook-Weisbaerg test for the study *(appendix II)* indicates the chi^2 value of 2.23 with the p-value of 0.1354 suggesting the absence of heteroscedasticity. The hausman

specification test was also carried out to determine the most efficient model between the fixed and random effect. The test result *(appendix II)* revealed that the value of chi^2 is 4.90 with the prob>$chi^2$of 0.2982. The insignificant value as reported by the probability of chi^2 indicates that the individual effects are random not fixed in the model hence fixed effect model is rejected in favour of Random effect model which is better specified. Further a Breusch and Pagan lagrangian multiplier test for random effect was conducted to choose between the random effect result and OLS regression. The result revealed that the chi^2 value is 0.00 with prob>chi^2 = 1.00 thus suggesting that random effect is not appropriate (there is no panel effect) and the 100% p-value can be explained from the indifference in the coefficient, error term and t-value of both random effect model and OLS model indicating that the pooled OLS is not different from the random effect model. Thus the study conducts and interprets the Robust OLS. The justification for this is because the study fails to reject the null hypothesis in respect of Lagrangian Multiplier test for random effect model which states that there is no panel effect. In addition, the study further conducts the kernel density test and the curve shows a bell shape signifying that the data of the variables used for the study are normally distributed *(appendix III).*

Table 3: Regression Result

Variables	Coefficient	T-value	P-value	VIF	Tolerance Value
FCF	.6077001	6.67	0.000	1.27	0.785724
MOWN	-.0140739	-1.73	0.088	1.13	0.888851
FCFMOWN	-.0363995	-0.07	0.944	1.25	0.799100
FSIZE	.004036	0.18	0.859	1.16	0.858558
CONSTANT	-.0067623	-0.06	0.966		
R2	0.4392				
F STATISTIC	30.95		0.0000		

Source: Robust OLS regression result using STATA 13.0

The result of the regression as presented in table 3 above shows that free cash flow (*FCF*) has a coefficient of 0.6077 and a p-value of 0.000, which is significant at 1% level of significance. This implies that free cash flow has a positive and significant effect on the earnings management of listed conglomerate firms in Nigeria. This means that the percentage increase in free cash flows of conglomerate firms in Nigeria is likely to increase the earnings management of the listed conglomerate firms by 0.6077, suggesting that as free cash flow is increasing in the sample firms, the earnings management will also be increasing**.** Thus, the study rejects the null hypothesis that free cash flow has no significant effect on the earnings management of the listed conglomerate firms in Nigeria. This result is consistent with the free cash flow hypothesis, which states that free cash flow will have a positive effect on earnings management and is in agreement with the works of Hossein et al. (2011), Gharari and Hassanzadeh (2015), Gilaninia (2017) and Fakhroni et al., (2018), however, contradict the result of Jones et al., (2001) and Chung et al., (2005).

From the regression result in table 3, managerial ownership (*MOWN*) has a coefficient of -0.0140739 and a p-value of 0.088, which is significant at 10%.This implies that managerial ownership has a negative and significant effect on earnings management of listed Conglomerates firms in Nigeria. This means that a percentage increase in managerial ownership will reduce the firms' earnings management by 1.4073%. Suggesting that increase in managerial interest in the shareholdings of the firms will reduce the managers' tendency to commit acts of earnings management. It further means that managers will not want to take action that will affect their stock returns; they tend to reduce their opportunistic behaviour when their shareholding interests are growing. Based on this result, the study rejects the null hypothesis, which states that managerial ownership has no significant effect on the earnings management of the listed conglomerate firms in Nigeria. This result is also consistent with the alignment of interest hypothesis and it is in agreement with the works of Kazemian (2015); Obigbemi, (2017) and Wiyadi, Tyas ,Trisnawati and Sasongko, (2017). However, contradicts the results of Sandra, (2012), Alves, (2012), Popoola (2016) and Farouk and Bashir (2017).

Furthermore, from Table 3, free cash flow moderated by managerial ownership (*FCFMOWN*) has a coefficient of -.0363995 and a p-value of 0.949, implying insignificance. This implies that managerial ownership has a decreasing effect on earnings management in a free cash flow situation of listed conglomerate firms in Nigeria; however, this effect is insignificant at all levels of statistical significance. This suggests that managerial ownership may not possess the likelihood to reduce earnings management in the presence of free cash flow. Thus, suggesting that the interest of the directors in the shareholders of the listed conglomerate firms in Nigeria may not curtail their opportunistic behaviour in the presence of free cash flow. Based on this result, although the negative coefficient upholds the alignment of interest hypothesis, managerial ownership does not moderate due to its insignificance nature. Hence, the study fails to reject the null hypothesis that states that Managerial ownership has no significant moderating effect on the relationship between free cash flow and earnings management of listed Conglomerate firms in Nigeria. The result of this study contradict the effect of Mehdi et al. (2016); Raeisi and Vaez (2016), and Rezizaded and Talebnia (2016).

The study's findings revealed that free cash flow has a significant increasing effect on earnings management of listed conglomerate firms in Nigeria. This signifies that when there is an increase in excess cash in the firm, management tendency to misbehave and act opportunistically in the listed conglomerate firms in Nigeria increases. This result is in line with the free cash flow hypothesis and agency theory which states that conflict of interest arises between the managers and the shareholders in free cash flow. Managers may want to utilise the free cash flow to benefit, thus creating room for earnings management. This study is also in line with the works of Gharari and Hassanzadeh (2015)**,** Zahra et al. (2015) and Fakhroni et al. (2018) and contrary to the findings of Jones *et al.* (2001).

The study's results further show that there is a significant decreasing effect of managerial ownership on earnings management of

listed conglomerate firms in Nigeria. This may be due to the managers' stake in the firms, which makes them closely monitor the firms' activities to ensure that shareholders' funds are not appropriated. Also, the managers' interest in the shareholdings of the firm is not promoting managers to maximise their utility function as against the interest of the shareholders' wealth maximisation. The findings are consistent with the agency theory and also in conformity with the works of Farouk and Bashir (2017), Popoola, Ratnawati & Hamid (2016), Sandra (2012), Alves (2012). However, contrary to Wiyadi *et al*, (2017), Kazemian and Zuraidah (2015).

In addition, the study found a decreasing effect of managerial ownership moderated with free cash flow on earnings management of listed conglomerate firms in Nigeria, though not significant. This finding may be attributable to the manager's ownership of listed conglomerate firms' play in reducing earnings management. Thus, the managers being part of the shareholders may not affect how they could manage earnings in the presence of excess available cash in the listed conglomerate firms in Nigeria. This study is contrary to the agency theory and the research work Raeisi and Vaez (2016).

Finally, the regression results presented reveal that the relationship between firm size and earnings management is positive but insignificant. This finding suggests that larger firms are more likely to use discretionary accruals to manage their earnings; however, size could not constitute a significant factor motivating earnings management practice among the managers. This finding is in line with Naz, Bhatti, Ghafoor and Khan (2011), Similarly, this view is also supported by the findings of Sun and Rath (2009). On the contrary, Burgstahler and Dichev (1997) concluded that both small and large firms engage in managing earnings to circumvent the decrease in earnings.

Policy Implication of the Findings

From the analysis conducted, the study's findings may have implications to investors, management and policymakers of conglomerate firms in Nigeria. Firstly, a critical significance of the results is based on the fact that free cash flow is a significant variable affecting the practice of earning management; there is a possibility that firms managers may want to take advantage of excess cash available for their benefit means their tendency to manipulate. Therefore, policies should be instituted by firms to deal with excess cash flows by immediate profitable investment. Secondly, regulatory bodies such as Securities and Exchange Commission (SEC), Nigerian Stock Exchange (NSE) and Financial Reporting Council of Nigeria (FRCN) should be aware of the possibility of opportunistic behaviour among firms' managers in conglomerate firms in Nigeria when excess cash is available. They should do more by introducing new standards and reviewing existing ones to address grey areas that make room for managers to engage in earnings management in their corporate governance practice.

5. CONCLUSION AND RECOMMEDATIONS

The study has provided empirical evidence on the utility of the explanatory variables in explaining and predicting the extent of earnings management of listed conglomerate firms in Nigeria. The study concludes that free cash flow and its moderating effect by managerial ownership

affect earnings management. However, free cash flow has a significant positive effect while managerial ownership and moderation have negative effects that are significant and insignificant, respectively.

Therefore, based on the study's findings, it is recommended that managers be encouraged to increase their shareholdings in the firms to better align their interests with that of other shareholders. This may enable them to have more sense of belonging, which may help reduce their tendency to act opportunistically. Also, shareholders and management should exercise good governance practices to identify viable investment projects into which excess cash flow may be channelled to reduce the managers' motivation for opportunistic behaviours. In addition, firms should institute an efficient internal control system capable of monitoring the activities of managers, and external auditors should encourage the use ratios in evaluating the performance of a company relative to its resources, particularly cash, before forming an independent opinion on the financial statement to mitigate manager's chances of engaging in earnings management practices. The regulatory agencies such as FRCN, SEC and NSE should enforce the compulsory cash flow management policies such as investment policy and dividend policy to restore investors and creditors' confidence.

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APPENDIX I

Listed Conglomerate Firms in Nigeria as at 31/12/2017

S/N	Name of firm	Date of Listing
1	A.G. Leventis Nigeria PLC	29/11/1978
2	Chellarams PLC	1/4/1977
3	John Holt PLC	19/8/1974
4	SCOA Nigeria PLC	1977
5	Transnational Corporation of Nigeria PLC	23/11/2006
6	UACN PLC	1974

Source: Nigerian Stock Exchange FACT BOOK 2017

APPENDIX II

Regression Output

```
.
. xtsum em fcf mown fcfmown fsize
```

Variable		Mean	Std. Dev.	Min	Max	Observations
em	overall	.0188662	.0887859	-.2286073	.2555771	N = 76
	between		.0406082	-.0505241	.072303	n = 6
	within		.0803404	-.1919511	.2352698	T-bar = 12.6667
fcf	overall	.0013546	.0977121	-.380534	.2358388	N = 76
	between		.0444355	-.055207	.0643883	n = 6
	within		.0885362	-.3349486	.2265619	T-bar = 12.6667
mown	overall	.1436095	.2251562	.0002178	.5929382	N = 76
	between		.2308428	.0007961	.5544967	n = 6
	within		.0716811	-.0789119	.3336517	T-bar = 12.6667
fcfmown	overall	.0011577	.0170498	-.1084158	.0349216	N = 76
	between		.0021422	-.0006946	.0052481	n = 6
	within		.0169329	-.1125062	.0344915	T-bar = 12.6667
fsize	overall	1.86e+10	2.26e+10	2.58e+09	1.49e+11	N = 76
	between		1.69e+10	6.42e+09	4.68e+10	n = 6
	within		1.68e+10	-1.18e+10	1.34e+11	T-bar = 12.6667

```
. sktest em fcf mown fcfmown fsize
```

Skewness/Kurtosis tests for Normality

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	joint adj chi2(2)	joint Prob>chi2
em	76	0.1817	0.0622	5.16	0.0760
fcf	76	0.0046	0.0047	13.00	0.0015
mown	76	0.8019	0.0181	5.45	0.0655
fcfmown	76	0.0000	0.0000	61.49	0.0000
fsize	76	0.0488	0.8456	4.07	0.1306

```
. pwcorr em fcf mown fcfmown fsize, star (0.05)
```

	em	fcf	mown	fcfmown	fsize
em	1.0000				
fcf	0.6437*	1.0000			
mown	-0.0562	0.1531	1.0000		
fcfmown	0.2541*	0.4125*	0.0811	1.0000	
fsize	0.0762	0.1627	0.3084*	-0.0923	1.0000

```
. reg em fcf mown fcfmown fsize
```

Source	SS	df	MS		
Model	.259664944	4	.064916236	Number of obs	= 76
Residual	.331555042	71	.004669789	F(4, 71)	= 13.90
				Prob > F	= 0.0000
Total	.591219987	75	.007882933	R-squared	= 0.4392
				Adj R-squared	= 0.4076
				Root MSE	= .06834

em	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
fcf	.6077001	.0911034	6.67	0.000	.426045	.7893551
mown	-.0140739	.0081238	-1.73	0.088	-.0302722	.0021245
fcfmown	-.0363995	.5177248	-0.07	0.944	-1.068713	.9959145
fsize	.004036	.0226661	0.18	0.859	-.0411589	.049231
_cons	-.0067623	.1602774	-0.04	0.966	-.3263462	.3128217

```
. vif
```

Variable	VIF	1/VIF
fcf	1.27	0.785724
fcfmown	1.25	0.799100
fsize	1.16	0.858558
mown	1.13	0.888851
Mean VIF	1.20	

```
. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of em

         chi2(1)       =      2.23
         Prob > chi2   =    0.1354
```

```
. xtreg em fcf mown fcfmown fsize, fe

Fixed-effects (within) regression               Number of obs      =        76
Group variable: id                              Number of groups   =         6

R-sq:  within  = 0.4088                         Obs per group: min =        11
       between = 0.0999                                        avg =      12.7
       overall = 0.3525                                        max =        13

                                                F(4,66)            =     11.41
corr(u_i, Xb)  = -0.0527                        Prob > F           =    0.0000

------------------------------------------------------------------------------
          em |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         fcf |   .5402228   .0965643     5.59   0.000     .3474258    .7330197
       mown |  -.0103315   .0330371    -0.31   0.755    -.0762922    .0556293
     fcfmown |  -.0781278   .5047318    -0.15   0.877    -1.085857    .9296018
       fsize |  -.0633742   .0391063    -1.62   0.110    -.1414524    .0147041
       _cons |   .4700969    .279253     1.68   0.097    -.0874498    1.027644
-------------+----------------------------------------------------------------
     sigma_u |  .03939648
     sigma_e |  .06584982
         rho |  .26358836   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(5, 66) =     2.09                 Prob > F = 0.0773

. est store fe

. xtreg em fcf mown fcfmown fsize, re

Random-effects GLS regression                   Number of obs      =        76
Group variable: id                              Number of groups   =         6

R-sq:  within  = 0.3806                         Obs per group: min =        11
       between = 0.7609                                        avg =      12.7
       overall = 0.4392                                        max =        13

                                                Wald chi2(4)       =     55.61
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000

------------------------------------------------------------------------------
          em |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         fcf |   .6077001   .0911034     6.67   0.000     .4291407    .7862595
       mown |  -.0140739   .0081238    -1.73   0.083    -.0299961    .0018484
     fcfmown |  -.0363995   .5177248    -0.07   0.944    -1.051121    .9783225
       fsize |    .004036   .0226661     0.18   0.859    -.0403887    .0484608
       _cons |  -.0067623   .1602774    -0.04   0.966    -.3209001    .3073756
-------------+----------------------------------------------------------------
     sigma_u |           0
     sigma_e |  .06584982
         rho |           0   (fraction of variance due to u_i)
------------------------------------------------------------------------------

. est store re
```

```
. hausman fe re
```

	Coefficients (b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
fcf	.5402228	.6077001	-.0674773	.0320131
mown	-.0103315	-.0140739	.0037424	.0320227
fcfmown	-.0781278	-.0363995	-.0417283	.
fsize	-.0633742	.004036	-.0674102	.0318677

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 4.90
Prob>chi2 = 0.2982
(V_b-V_B is not positive definite)

```
. xttest 0
unrecognized command:  xttest
r(199);

. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        em[id,t] = Xb + u[id] + e[id,t]

        Estimated results:
                     |         Var     sd = sqrt(Var)
             ---------+-----------------------------
                  em |    .0078829        .0887859
                   e |    .0043362        .0658498
                   u |           0               0

        Test:   Var(u) = 0
                           chibar2(01) =      0.00
                         Prob > chibar2 =    1.0000


. reg em fcf mown fcfmown fsize, robust

Linear regression                               Number of obs =        76
                                                F(  4,    71) =     30.95
                                                Prob > F      =    0.0000
                                                R-squared     =    0.4392
                                                Root MSE      =    .06834

------------------------------------------------------------------------------
             |               Robust
          em |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         fcf |   .6077001   .0960318     6.33   0.000     .4162182    .799182
       mown |  -.0140739   .0069539    -2.02   0.047    -.0279396   -.0002082
     fcfmown |  -.0363995   .2504769    -0.15   0.885    -.5358363    .4630374
       fsize |    .004036   .0221588     0.18   0.856    -.0401473    .0482194
       _cons |  -.0067623   .1586876    -0.04   0.966    -.3231764    .3096519
------------------------------------------------------------------------------
```

APPENDIX III