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AUDIT ATTRIBUTE, FIRM SIZE AND EARNINGS MANAGEMENT OF LISTED COMPANIES IN NIGERIA

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Abstract: The paper examined the relationship between external audit and earnings management of manufacturing companies in Nigeria. With a sample of thirteen listed manufacturing companies in the consumer goods sector for a period of seven years, and the application of the Ordinary Least Square multiple regression technique, in addition to other robustness tests, the analysis of a pool of secondary data (panel) obtained from the published annual reports of the sampled firms yielded a significant positive relationship between the two main variables. The implication is that variation in earnings management is significantly predicted by the audit attribute. Consequently, the paper recommended, among others, that compensation for external auditors should include upward review of the audit fee annually and the provision of necessary resources both financial and otherwise to enhance quality audit.

Keywords: Audit attribute, Earnings management, Firm size, Agency, Discretionary accruals

1. Introduction

Earnings management is the *"*purposeful intervention in the external financial reporting process, with the intent of obtaining some private gains" (Schipper, 1989). Most studies on earnings management assume that management's ability to make accounting adjustment for opportunistic reasons is the same across firms. However, this may not be the case. Earnings management has led to corporate scandals and failures in Nigeria, like many other countries around the world. Organizations like Oceanic Bank, Societe Generale Bank, Savannah Bank and Cadbury Plc failed, as a result of financial reporting failure, despite the auditor's endorsement that the financial reports were true and fair, and conform to the relevant rules and regulations; and reflect actual transactions.

Existing literature on auditing and financial reporting hypothesize that auditors are a determinant of financial reporting quality, because of their role in mitigating intentional and unintentional misstatements (Dechow, Ge, & Schrand, 2010; Palmer, 2008; Kamolsakulchai, 2015). Lee, Taylor & Taylor, 2006). The auditor serves a fundamental purpose in helping to enforce accountability and promote confidence in financial reporting. Whenever a business becomes bankrupt suddenly, the oversight function, independence and professionalism of the audit practice is usually called to question, especially when the financial statements of such business did not indicate any failure symptoms before then. This kind of response is informed by the expectation vested on auditors in ensuring quality financial reports. The auditors have duties in prevention and detection of fraud and error. However, modern auditing practice emphasizes more of the prevention and minimization of fraud and errors by assisting the firm to develop sound internal control system (Okezie, 2004).

Auditing became necessary because of the agency problem. Relationships between principals and their agents are of particular importance in understanding how audits have evolved and continue to develop. The statutory audit has developed over at least a century in response to the agency risks. Directors are delegated responsibility for managing the affairs of the company by the owners and financial report therefore becomes a primary mechanism for shareholders to hold the directors to account (Institute

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of Chartered Accountants of England and Wales, ICAEW, 2006). As a result of the separation of ownership from control, problems with information asymmetries and differing motives, there may be tension in the shareholder-director relationship (ICAEW, 2006). Prior studies (e.g., Kasznik & McNichols, 2002) indicate that managers have incentives to meet analysts' earnings forecasts through earnings management, more so because Management compensation is based on reported earnings. Using discretionary accruals as the measure of earnings management, Becker, DeFond, Jiambalvo, and Subramanyam (1998) find that audit quality is negatively related to income-increasing discretionary accruals, which indicates that high audit quality is associated with low information asymmetry. The audit function is a shareholders' mechanism to help ensure that the directors are acting in the company's best interests and it therefore plays a fundamental stewardship role (ICAEW, 2006).

The other question the study will examine is the impact of firm size on earnings management. The size of the firm is an attribute that affects financial reporting quality (Dechow' & Ge, 2006). The firm size in most cases is measured by the asset size of the firm (Saheed, 2013). A large firm is expected to have a well structured accounting and internal control department and should be able to afford the services of professionals who are expected to enhance the financial reporting process (Chalaki, Didar, & Riahnezhad, 2012). They are also likely to have a well built information system that enables them track all financial and non financial information for operational, tactical and strategic planning (Saheed, 2013). Generally, it is expected that audit attribute and firm size will influence the occurrence of earnings management.

Some studies in Nigeria such as, Kiabel (2012) investigated the relationship between internal auditing and performance of government enterprises in Nigeria and used primary data obtained through the questionnaire. The study found no strong association between internal auditing practices and financial performance of Government Owned Companies and that political influence does not significantly impact this relationship. Similarly, Nwanyanwu (2017) examined the influence of audit firm attribute on financial reporting in Nigeria, drawing evidence from auditing firms, using basically primary data obtained through the questionnaire, found a statistically significant positive relationship between the measures of audit attribute (auditor independence, technical training and proficiency and engagement performance) and financial reporting (measured in terms of reliability of financial report). Bala, Amran and Shaari (2018) investigated the relationship between audit fees and financial reporting quality measured by earnings management, using 88 listed companies in Nigeria. Umaru (2014) investigated the relationship between audit attributes (audit compensation, audit firm independence, audit firm type and joint audit) and financial reporting quality of listed building material firms in Nigeria. The studies cited above did not consider the association between audit attribute, firm size and earnings management in Nigeria. The present study investigates the influence of audit attribute and firm size on earnings management of listed consumer goods manufacturing firms in Nigeria.

The next sections will discuss literature review, methodology, data presentation and analyses. Others are discussion of findings, conclusion and recommendations

2. Literature Review

2.1. Agency Theory

The origin of the agency theory is linked to the need for merchants to make large business ventures less risky and easier to finance. This need engendered the formation of Joint-stock companies (or the limited liability companies) in Europe in the early seventeenth century as a means to limit the many risks and costs associated with certain types of businesses. This also led to the development of stock markets in which publicly held shares are issued and traded. In a limited liability company, individuals can purchase portions of the company in the form of shares, thereby making them (the shareholders) co-owners and investors in the company. In this kind of business arrangement, all benefits, risks and costs of doing business would be distributed over a large number of people otherwise referred to as shareholders. Also, shareholders are legally responsible for the debts of the company only to the sum of the nominal value of their shares.

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However, unlike the sole proprietorship where the owner controls and manages his business, in a limited liability company especially one that has a large number of shareholders, it is practically impossible for all shareholders to be actively involved in the day-to-day running of the business. What obtains here is a situation where the shareholders (owners) delegate the running of the business to managers; hence the separation of ownership from management. It is this separation of ownership from management that brought about the principal/agent relationship otherwise referred to as the agency theory.

According to the agency theory, "an agency relationship is a contract under which one or more principals engage an agent to perform some service on the principals' behalf and delegate some decision-making authority to the agent" (Jenson & Meckling, 1976). Agency relationship according to Craig (2010) refers to many relationships involved in the delegation of decision making from one party (principal) to another party (agent). The principal is a team of shareholders who are the owners of the company. The agent is the board of directors or management. Management is supposed to work in the best interest of its principal; however it is not unusual to have conflict of interests. Conflict of interests arises when the attention of managers shifts away from the goal of maximizing shareholders wealth to achieving their own personal objectives (such as desire for high salary, large bonus and status for a director). In other words, managers tend to chase after their short-term perspective rather than protecting long-term shareholder wealth.

Conflict of interest is necessitated by information asymmetry. According to Richardson (1998), managers have access to private information about the firm and its earnings, which might not be available to the shareholders. This is called "information asymmetry". This asymmetry can manifest itself in the form of financial reports published by a firm. Consequently, when information asymmetry is high, stakeholders (or shareholders) are unable to verify whether the published information represents the actual economic condition of the firm or not. In order to reduce or eradicate information asymmetry and conflict of interests, the principal usually can offer appropriate incentives to the agent or set up monitoring systems. The audit practice is a monitoring mechanism established to control information asymmetry and protect the interests of the principal by providing reasonable assurance that financial statements produced by management are free from material misstatements (Watts & Zimmerman, 1986). Eilifsen & Messier, (2000) argued that the demand for auditing arises from the auditor's monitoring role in the principal-agent relationship. The quality of this monitoring function describes how well auditing practices can detect and report material misstatements of financial reports, reduces information asymmetry between the board and shareholders and in effect enhance the protection of the shareholders' interests (Dang 2004). Auditing reduces the information asymmetries that exist between management and external stakeholders by allowing an independent external party to verify the validity of the financial statements (Becker *et al.*, 1998).

The agency theory is usually criticized for prioritizing the interest of shareholders over and above the general interest of other stakeholders, such as employees, the government and the society in general (Charron, 2007, cited in Barde, 2009). The other drawback of the principal-agent relationship is the argument by the economic bonding theory proponents. They argued that the conscious or unconscious bond between the audit function and management necessitated by the auditor's monetary dependence on management can negatively affect the auditor's resistance against unethical inducement to manipulate financial records and compromise audit quality (Frankel, *et al*., 2002). The other disadvantage of the agency problem is the agency cost. Agency costs are costs incurred by principals in monitoring agency behaviour because of lack of trust in the good faith of agents (ACCA, 2015). Jensen and Meckling (1976) referred to agency costs as the inevitable loss of firm value that arises as a result of the agency problems along with the costs of contractual monitoring and bonding.

2.2. Earnings Management

There are two basic methods of accounting that are employed by firms to report their incomes and expenses –

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cash and accrual basis. Under cash accounting, earnings are recorded when the cash has been received and expenses are recorded when cash has been paid. On the other hand, under accrual accounting, earnings and expenses are not recorded when cash has been paid or received, but rather when the transaction occurs (good or services are delivered or a sale is made). Hence, accruals are either the income that has been earned but not yet received in cash or expenses that have been incurred but not yet paid in cash. According to Tudor and Mutiu (1990), accrual based accounting is a more efficient method because it represents a better picture of the current income, due to which the statement of financial position (also known as balance sheet) is more accurate. Also, it is a better indicator of a firm's present and future cash generating abilities since it requires the financial statements not just to present the cash receipts and payments made but also the future cash outflows and inflows.

Managers are usually given considerable amount of discretion when preparing financial statements (Due to the choice of accounting methods), which may, in some cases be misused in order to create short-term personal gains or assumed overall gains. This process of misreporting financial information is known as "Earnings management". Earnings management can be done by various means, such as, changes in a firm's capital structure, changes in the accounting methods, and the use of accruals – specifically, the discretionary accruals (Jones, 1991).

Earnings management involves the repetitive selection of accounting measurement or reporting rules in a particular pattern, the effect of which is to report a stream of income with a smaller variation from trend than would otherwise have appeared (Copeland, 1968). Earnings management is defined by Barnea et al. (1976) as the deliberate dampening of fluctuations about some level of earnings considered being normal for the firm. In views of Schipper (1989) Earnings management can be equated with disclosure management, in the sense of a purposeful intervention in the financial reporting process.

Furthermore, Merchant & Rockness (1994) describe earnings management as any action on the part of management which affects reported income and provides no true economic advantage to the organization and may in fact, in the long-term be detrimental. Similarly, Healy and Wahlen (1999) define earnings management as "an attempt to manage earnings to either mislead some shareholders about the underlying economic performance of the company, or to influence contractual outcomes that depends on reported accounting numbers" According to Davidson et al., (1985), earnings management is the process of taking deliberate steps within the constraint of generally accepted accounting practice to bring about a desired level of reported earnings. Earnings management might be defined differently, but there seems to be the same underlying concept that earnings management distorts a company's real performance. Managers try to keep the figures relatively stable by adding and removing cash from reserve accounts rather than having years of exceptionally good or bad earnings for the purpose of income smoothing. Firms' financial reporting quality is measured in terms of earnings quality which is also synonymous with accruals quality; that is, earnings with less accruals and high cash flow components.

Accounting earnings as a major factor that conveys signals to the capital market is regarded as high quality if the probability of errors and misstatements is low or absent (Ewert & Wagenhoper, 2010). Accounting applications, due to its nature, give substantial discretion to managers in preparing financial reports. The applications of this discretion (such as discretionary accruals) allow managers to convey information to outside investors, and keep some information private for competitive reasons. Using discretions deliberately to influence capital providers in making economic decision lead to the manipulation of financial data hence deteriorates earnings quality. Ashbaugh & Pincus (2001) suggest that restrictions accounting alternatives would limit management's opportunistic discretion in determining accounting numbers.

Abnormal accruals have been used as a proxy for earnings quality or financial reporting quality. The normal accruals are meant to capture adjustments that reflect fundamental performance, while the abnormal accruals are meant to capture distortions induced by application of the accounting rules or earnings management (i.e., due to an

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imperfect measurement system) (Dechow, et al., 2010). According to them, these measures attempt to directly capture problems with the accounting measurement system and so are particularly relevant to accounting researchers. They further state that, the general interpretation is that if the "normal" component of accruals is modeled properly, then the abnormal component represents a distortion that is of lower quality.

A widely used model by many researchers is the Jones model or its modified versions (1991), which uses a regression model to first calculate non-discretionary accruals and then requires the subtraction of non-discretionary accruals from the total accrual amount. This model has been used in the literature to capture earnings management, which is viewed as an inverse measure of earnings quality (e.g., Bartov et al. 2001, Gul et al. 2003, Dowdell & Krishnan 2004, etc.). Subramanyam (1996), Xie (2001) showed that one could measure the quality of earnings presented by a firm more accurately by eliminating the "normal" or non-discretionary accruals from the equation, since these can be linked to the macro-economic conditions in the market and hence be justified. The most common components of financial statements that display earnings manipulation (high discretionary accruals) are the inventory and accounts receivable. Richardson, Sloan, Soliman, and Tuna (2006) found that firms with high accruals (representing a high likelihood of earnings manipulation) are more likely to have allegations against them by the SEC for overstating their earnings figure.

The other frequently used model for earnings and accrual quality is the Dechow and Dichev (2002) accrual quality measure which is based on how well accruals map into cash flows. This measure defines accrual quality as the error variance from a regression of working capital accruals on past, current, and lagged cash flows. Many researchers have used this model or variants of it, such as Francis et al. (2004, 2005), Aboody et al. (2005), Vafeas (2005) etc.

Earnings management can be practiced even within the confines of accounting standards such as the IFRS or the GAAP. This is because the legislation behind these standards requires for the discretion of managers in various circumstances. Therefore, the evidence of earnings management may not be a conclusive prove of intentional manipulation, given that management decision might be in line with the actual firm circumstances or on the other hand, an attempt to manipulate the information for personal gains. (Dechow & Skinner 2000)

Academics have mostly had the opinion that earnings management is not a major concern to be looked after, because with time, the market realizes the actual value of a security and corrects itself, which is in line with the efficient market theory. However, practitioners tend to disagree with this line of thought. Furthermore, academics believe that if all the necessary reasoning behind the reported figures on the financial statements is provided under the notes of the report, it does not count as earnings management, since the user has all the information to make an informed decision. But practitioners and regulators believe that not all information users (market participants/investors) have the required knowledge or resources to access and understand the detailed information provided separate from the financial statements themselves (Dechow & Skinner 2000). Earnings management (Discretionary accruals) has been used variously in the literature to proxy financial reporting quality by such authors like Jones (1991), , Dechow et al. (1995), Klein (2002), Kothari et al (2005), Francis et al. (2008), Raman & Shahrur (2008).

2.3. Audit Attribute and earnings management

The term audit attribute is used interchangeably with audit characteristic and audit quality in the literature. There is a general opinion expressed in audit literature that audit attribute cannot be directly observed by outside parties. However, audit quality is measured by auditor independence, audit compensation (Fee), auditor type, Size, Industry specialization, and Joint audit (DeAngelo, 1981; Palmrose, 1986; Krishnan, 2003; Dechow, et al., 2010). Brown, Falaschetti and Orlando (2006) stated that auditor independence improve the quality of financial disclosures. Similarly, compensation to auditors is found to be related to financial reporting quality (DeAngelo, 1981). Audit compensation is used as a measure of audit quality, since audit fees usually reflect additional audit

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effort which will culminate to a higher level of audit quality (DeAngelo, 1981; Carcello, Hermanson, Neal & Riley, 2002). Another audit firm characteristic commonly associated with the financial reporting quality is audit firm size (that is, Big 4). The Big 4 is conceived as financially independent and highly experienced, thus less likely to be subjected to any pressure from the clients. Becker, Defond, Jiambalvo and Subramanian, (1998), and Francis, Maydew and Sparks (1999) opined that Big 4 audit firms have demonstrated higher audit quality as measured by lower absolute values of discretionary accruals(Financial reporting quality) of their clients, and are less likely to manage earnings. Researchers have argued that the quality of an external auditor is an important factor affecting financial reporting quality, consequently, a high quality external auditor is expected to have an influence on the quality of financial reporting

Extant empirical literature on the relationship between external audit attribute and financial earnings management from different parts of the world provide mixed results. Although the studies used different methodologies in different environment, this study is designed to provide evidence from Nigeria. Previous studies document that higher audit fees are related to lesser earnings management and higher financial reporting quality. For instance, Franke, Johnson and Nelson (2002) study the effect of audit fees and earnings management in US. The study reveals that audit fees have a negative significant relationship with earnings management. This is affirmed by Hoitash, Markelevich and Barragato (2007)who apply 13,860 firm-year observations and determine the influence of audit fees and audit quality in US. Their finding reveals a negative significant correlation between audit fees and discretionary accruals. Mitra, Deis and Hossain (2009) examine the relationship between audit fees and FRQ of Big 5 client firms in US. They employ a sample of 6,852 firm-year observations for the period of 2000 to 2005. Their finding reveals that audit fees reduce the likelihood of abnormal accruals and thus increase earnings quality. More so, Carmona, Momparler and Lassala (2015) explore the relationship between audit fees and audit quality of listed firms in Spain. They show that audit fee is negatively and significantly related to discretionary accruals. This indicates that higher audit price is related to lower discretionary accruals and higher financial reporting quality.

Moreover, Francis and Ke, (2003); Reynolds and Francis, (2000) found that audit fee does have a negative relationship with earnings quality, and thus improve the quality of financial reporting. On the other hand, Gul *et al*., (2003) examined the relationship between audit fees and discretionary accruals in a sample of Australian firms, their results showed a positive association between financial reporting quality (discretionary accruals) and audit fees. They dispute the belief that audit fees erode independence. The debate in the academic literature on the effects of the various components of auditor's compensation on auditor independence has produced mixed results. Some arguments like Simunic (1984) and Francis et al., (2003) supported the notion of a positive association between auditor independence and compensation. On the other hand, financial dependence of the audit firm on a client may also increase the likelihood that the auditor will succumb to management's requests leading to lower quality financial statements (Espinosa – Pike & Barrainkua, 2016).

2.4. Firm size and earnings management

Firm size is the capacity of an organization measured by its asset based, sales (turnover) or other parameters. Xie, (2003). Yang and Krishnan, (2005), used total assets as a measure of firm size calculated from the natural log of total assets to reduce scale difference of variables. Firm size is also viewed as the measurable magnitude or scale of an organization, which could be large, medium or small.

One of the most arguable firm characteristics which have effect on reported earnings quality is firm size. Since large companies are more exposed to public scrutiny (Alsaeed, 2006) and are more complex (Craig & Diga, 1998), than smaller companies, they need to provide better quality of earnings reporting. Besides that, large companies also have greater resources and may be able to appoint prestigious external auditors and attract reputable non-executive directors (Song & Windram, 2000), which in turn could help them in enhancing the quality of financial report and at the same time posses sufficient resources for collecting,

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analyzing and presenting extensive amount of data at minimal costs (Alsaeed, 2006). They are also likely to have a well built information system that enables them track all financial and non financial information for operational, tactical and strategic planning (Saheed, 2013). This is because it is assumed that a well structured accounting and internal control department will ensure the integrity of financial report. Internal control procedures are meant to detect and/or prevent both the ability to manipulate earnings as well as unintentional mistakes or errors (Dechow' & Ge, 2006).

Evidence from previous studies have shown that the size of company was significantly positively associated with the level of disclosures (Alsaeed, 2006; Craig & Diga, 1998) and negatively associated with discretionary accruals (Abbott, *et al* 2004; Davidson, *et al* 2005; Rahman & Ali, 2006; Yang & Krishnan, 2005).

3. Methodology

This study adopts correlational and Ex-post facto research design.. Panel data obtained from the published financial reports of the sampled firms were used in the analysis. The population of the study consists of the 21 listed manufacturing firms (Consumer goods sector) operating on the Nigerian Exchange Group (NGX) between 2012 and 2018. The sample of 13 listed consumer goods manufacturing companies used was determined using the following criteria:

i. The firm must be in operation and on the NSE during the period 2002 through 2018. Although the study period is 2012 to 2018, we however require data from 2002 to 2018 to be able to estimate discretionary accrual using the modified Jones model.

ii. The firm must be a consumer good producer, using the categorization by the Nigerian stock exchange (NSE).

iii. The firm must not have been delisted throughout the period of the study. This is to ensure data continuity and availability.

iv. Lastly, data from sampled firms must be available, complete and accessible for the period 2002 to 2018.

The study employed the Ordinary Least Square (OLS) multiple regression technique of data analysis, with consideration for either the pooled regression model (PRM) or fixed-effect regression model (FEM) or random-effect regression model (REM). The Econometric View (E – View version 10.0) was used to compute the parameters for our study model

3.1. Measurement of Variables

Audit attribute is measured in terms of audit fee. In order to bring all firms in the panel of sampled firms on the same level, audit fee was scaled by total assets. In specific terms, AF_{it} = (Audit Fee/Total Assets)

The division by total assets is necessitated by the need to take cognizance of the cross-sectional difference in the paneled sample of firms. Firm size was measured using the Natural logarithm of Total assets. Consistent with prior studies (Klein, 2002; Francis et al, 2008; Kothari et al, 2005, Zukbee & Williamson, 2024) earnings management is represented by discretionary accruals otherwise called abnormal accruals. There is no universally accepted measure for discretionary accruals; therefore, for this study we adopted the modified Jones model (1991) which measures abnormal accruals as an estimated difference between total accruals and non discretionary accruals. Total accruals were used in the model of Jones (1991) to create a least squares regression model of total accruals to estimate the linear regression coefficients according to the following equation:

$$\mathbf{TA_{it}/A_{it-1} = a + b[(\Delta REV_{it})/ A_{it-1}] + c(PPE_{it}/ A_{it-1}) + e_{it}} \quad \textbf{……(1)}$$

Where :

$\mathbf{TA_{it}}$ = Consistent with prior research (e.g. Becker et al., 1998), Total accruals of firm *i* at the end of time *t*. Total accruals (TA) was calculated as the difference between net profit and cash flow operations on cash flow statement, expressed as $TA_{it} = NP_{it} - CFO_{it}$.

$\Delta \boldsymbol{REV_{it}}$ = Change in Revenue calculated as revenue of firm *i* at time *t* (current period) minus revenue of firm *i* at time *t-1* (the previous period)

$\mathbf{PPE_{it}}$ = Property Plant and Equipment of firm *i* at time *t*

$\mathbf{A_{it-1}}$ = Total assets of firm *i* at the end of time *t-1*

a,b,c = Linear regression coefficients of the model

$\mathbf{e_{it}}$ = **discretionary accrual (i.e. a**pproximation errors of total accruals)

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OLS regression is used to obtain firm-specific estimates for a, b, and c for the model. The residuals (the difference between fitted values and actual total accruals) are the discretionary accruals. As a guide, the following hypotheses were formulated:

Ho1: There is no significant relationship between audit fee (AF) and earnings management (EMGT).

Ho2: There is no significant relationship between firm size (SIZE) and earnings management (EMGT)

3.2. Models Specification

The model used in the study is presented as follows:

$EMGT_{it} = \beta_0 + \beta_1 EAA_{it} + \beta_2 SIZE_{it} + \mu$ ……..(2)

Where,

β_0 = the intercept

β_1 - β_2 = the parameters estimate or coefficients of the equation

$EAAF_{it}$ = External Audit Attribute using Audit fee of firm i at time t.

$SIZE_{it}$ = Size of firm i at time t.

μ = Error term.

$EMGT_{it}$= Earnings management of firm i at time t.

In regression analysis considering linearity, normality, stability of variance and independence of observations is of vital importance. In this study, these assumptions were considered with the application of the robust standard error to mitigate the effect of estimation biases due to multicollinearity and cross sectional differences, thus improving the validity of all statistical inferences made.

4. Data Presentation and analysis

4.1 Multivariate Analysis

In this section, the joint impact of the explanatory and moderating variables on the dependent variable are examined with the aid of multiple regression technique. The multivariate analysis provides answers to the research questions raised as well as the hypotheses.

Since the data are generated by pooling companies from different backgrounds (i.e. cross-sectional heterogeneity), it might be necessary to take cognizance of the effects of heterogeneity disturbances in the reliability and validity of conclusions arising from the multivariate analysis. Generally, panel data analyses of this nature usually use either of pooled regression model (PRM) or fixed-effect regression model (FEM) or random-effect regression model (REM). In the case of pooled regression, it is assumed that the cross-sectional difference does not matter. In the case of FEM, it is assumed that the cross-sectional difference is considered significant enough for it presence to be taken cognizance in drawing conclusions. However, the effect is fixed along the cross-section. REM shares similar concern about the cross-sectional difference as FEM, only that it is assumed that the effect is not static but dynamic. The choice between PRM and any one of either FEM or REM is determined by outcome of a Likelihood Ratio Test procedure. See Table below for the regression results under the three assumptions.

Results on Multivariate Analysis of Earnings Management

The equation to be fitted, as stated in chapter 3 is presented as follows:

$EMGT_{it} = \beta_0 + \beta_1 EAA_{it} + SIZE_{it} + \mu$

The results as obtained from Eviews (version 7) are presented below:

Table 4.1: Regression Results of Earnings Management under Three distinct Assumptions of Cross-sectional Indifference (Pooled Regression Model), Cross-sectional Difference with Fixed Effect; and Cross Sectional Difference with Random Effect.

	Pooled Regression			FEM Regression			REM Regression		
Variable	**Coeff.**	**t-Stats**	**Prob.**	**Coeff.**	**t-Stats**	**Prob.**	**Coeff.**	**t-Stats**	**Prob.**
EAA	-774.794	-5.659	0.000	-774.794	-5.249	0.000	-774.794	-5.249	0.000
SIZE	-0.180	-2.443	0.017	-0.180	-2.266	0.026	-0.180	-2.266	0.026
C	2.562	1.840	0.069	2.562	1.706	0.092	2.562	1.706	0.092

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R-squared	0.512	0.512	0.512
Adjusted R-squared	0.490	0.407	0.490
S.E. of regression	0.034	0.036	0.034
F-statistic	22.589	4.859	22.589
Prob(F-statistic)	0.000	0.000	0.000
Durbin-Watson stat	3.714	3.714	3.714

To check if fixed cross-section effects are necessary in the panel-regression, the redundancy fixed effects test is executed. The null hypothesis is that the fixed effects are redundant and thus unnecessary.

Table 4.2: Redundant Fixed Effects Tests

Equation: Earnings management

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0.000000	(12,74)	1.0000
Cross-section Chi-square	0.000000	12	1.0000

The likelihood ratio test for redundant fixed effects (table 4.2) shows that the use of fixed effects estimation is unnecessary because the null hypothesis of redundant fixed effects is emphatically accepted at 1% level. Thus for earnings management as dependent variable, the hypothesized relationships are tested using pool regression model. Using a panel regression with pool regression allows for an estimation of the regression parameters by ordinary least squares (OLS), on the assumption that differences in the product lines as well as the ownership structures, administrative and financial characteristics in the panel of sampled firms of interest do not affect the validity of conclusions reached, on how earnings management is associated with the explanatory variables. Accordingly, (Pooled Regression Model) external audit attribute and audit attribute is significant at 5% level and is negatively related to earnings management. For instance, for every 1% increase in external audit attribute, earnings management will decrease by 774.79 points. Also, the moderating variable is also significant. Firm size is negatively related with earnings management. The significance of the explanatory variable is confirmed by the F-statistic and associated near-zero probability value. The adjusted R^2 of 0.49 implies that the variability of the explanatory variables can account for 49% of the observable changing behaviour of earnings management variable. Thus the obtained results are good and reliable, except some moderate concerns for serial correlation as indicated by the Durbin-Watson statistic (3.714) which shows a considerable presence of negative autocorrelation. In addition to the *ex-ante* diagnostic tests such as the Likelihood Ratio Test which validates the obtained results above, further diagnostic tests are necessary. For example the diagnostic test to confirm the non-violation of normality of residuals.

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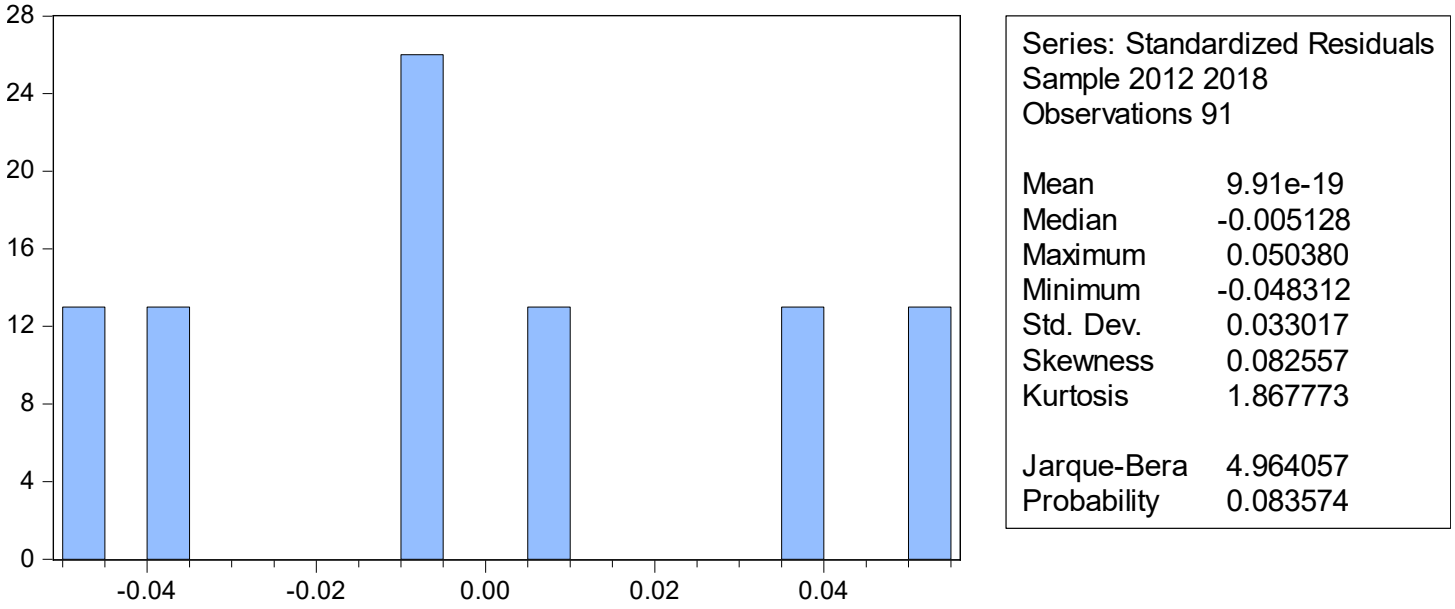

Figure4.1: Normality Test on Earnings Management

According to the normality test result, the residual of model (i.e. earnings management) are normally distributed as indicated by the Jarque-Bera statistic and associated probability value (0.0836) which is more than the 5% threshold level.

Dependent Variable: EMGT
Method: Panel EGLS (Cross-section weights)
Date: 04/09/20 Time: 15:27
Sample: 2012 2018
Periods included: 7
Cross-sections included: 13
Total panel (balanced) observations: 91
Linear estimation after one-step weighting matrix
White cross-section standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EAA	41861.63	15518.84	2.697471	0.0084
SIZE	1.259852	0.635521	1.982392	0.0506
EAA*SIZE	-2452.955	900.8333	-2.722984	0.0078
C	-21.32078	10.99001	-1.940015	0.0556

Weighted Statistics

R-squared	0.237243	Mean dependent var	0.091722
Adjusted R-squared	0.210941	S.D. dependent var	0.047280

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S.E. of regression	0.041999	Sum squared resid	0.153459
F-statistic	9.019954	Durbin-Watson stat	3.279350
Prob(F-statistic)	0.000029		

Unweighted Statistics			
R-squared	0.237243	Mean dependent var	0.091722
Sum squared resid	0.153459	Durbin-Watson stat	3.279350

There is a noticeable decline in earnings management explanatory capacity (21.09%). confirming that the interaction term did not contribute to the predictive ability of the model. However, the interaction between firm size and Audit attribute is significant at 5%. Accordingly, there is a high degree of probability that firm size can have moderating influence in the relationship between audit attribute and earnings management.

5. Discussion of Findings

From the tests conducted on the sampled data collected and the analyses of the results, this study found that external audit attribute and is negatively associated with earnings management in the listed consumer goods manufacturing companies in Nigeria. Evidences from the multiple regression results indicated that external audit fee and audit explained about 49% of the variation in earnings management of listed consumer goods manufacturing companies in Nigeria at 95% confidence level during the period covered by the study.

Specifically, the study showed that there is a negative and significant relationship between external audit attribute (audit fee) and earnings management (discretionary accruals). This means that increment in audit fee will reduce the occurrence of earnings management. Previous studies proved that higher audit fees are related to lesser earnings management and higher financial reporting quality. For instance, Franke, Johnson and Nelson (2002) study the effect of audit fees and earnings management in US. The study reveals that audit fees have a negative significant relationship with earnings management. This is supported by Francis and Ke, (2003); Reynolds & Francis, (2000);Umaru (2014),Bala, H. *et al*.,. (2018) who found that audit fee does have a negative relationship with earnings management (discretionary accruals), and thus improve the quality of financial reporting. However, it contradicts the findings of Gul *et al*., (2003) who examined the relationship between audit fees and discretionary accruals in a sample of Australian firms, their results showed a positive association between financial reporting quality (discretionary accruals) and audit fees.

The study could not find support for the moderating influence of firm size on the relationship between Eternal audit attribute and earnings management. The implication is that, firm size interacting with audit attribute could not influence earnings management. “Our findings did not support the position of Hamdan (2010).

5. Recommendations

In line with the findings of the study, we recommend that external auditors should be adequately compensated to enable them reduce the occurrence of earnings management and other misstatement. Adequate compensation may be relative but should include the provision of necessary resources both financial and otherwise. In addition, if the auditor is retained beyond one tenure, the audit fee should be reviewed upward annually and paid on time.

Secondly, with the understanding that the variation in earnings management is significantly influenced by the audit attribute, external auditors now have a higher responsibility as expectation over quality audit increases. The profession must pay more attention to competence and capacity building to enhance the quality audit that will significantly reduce earnings management.

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