Audit committee characteristics and earnings quality of listed food and beverages firms in Nigeria

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The relationship between Audit Committee characteristics and earnings quality is imperative. The mix of opinions makes the direction of their relationship ambiguous. This study investigated the relationship between Audit Committee characteristics and earnings quality of listed food and beverages Firms in Nigeria. The study covered the period of six years from 2007 to 2014. Data for the study were extracted from the Firms’ annual reports and accounts. After running the OLS regression, a robustness test was conducted for validity of statistical inferences. The dependent variable was generated using two steps regression in order to determine the discretionary accrual of the sample Firms. Multiple regression was employed to run the data of the study using OLS. The results from the analysis revealed significant association between audit committee characteristics and earnings quality of the Firms. While audit committee size and committees’ financial expertise showed inverse relationship with earnings management, committee’s independence and frequency of meetings are positively and significantly related to earnings management. In line with the findings, the study recommended among others that listed food and beverages Firms in Nigeria should strictly comply with the provision of Companies and Allied Matters Act (CAMA) and SEC Code of Corporate Governance on the issues regarding Audit Committees of having six members, equally represented by three shareholders and three directors. However, regulators such as SEC should increase the minimum number of Audit Committee members with financial expertise and they should also have a statutory position on the maximum number of Audit Committees meetings, which should not be greater than four meetings in a year as SEC code of corporate governance is silent on this. The study is only limited to the domain of the listed Food and Beverages Firms in Nigeria. As such, our findings and recommendations are only applicable to listed Food and Beverages Firms in Nigeria. For that, further research may be needed to be conducted on the audit committee attributes in other sectors other than manufacturing like financial institution.

Key words: Audit committee, firm size, leverage, earnings management and listed food and beverages firms in Nigeria.

INTRODUCTION

Financial scandals and the collapse of some multinational corporations can be as a result of the unethical accounting practices. One of such unethical issues in accounting is earnings manipulations that come under the umbrella of earnings management and serves as a strategic tool used by management under the pretext of maximizing firm’s value and reducing risks. This is possible by distorting and/or manipulating the application of Generally Accepted Accounting Principles (GAAP).

Earnings management is seen as an attempt by management to induce, or influence or manipulate reported earnings by using specific accounting method or changing methods; recognizing one-time non current
items, deferring or increasing expenses or revenue transactions or using other methods designed to influence short term earnings (Rahman, Muniruzzaman Sharif 2013). This practice, according to Levitt (1998) "causes an erosion in the quality of earnings, and consequently the quality of financial reporting will lose out to illusion".

The importance of accounting earning to stakeholders of any given firm cannot be over emphasized as the entire faith of the firm and consequently of its stakeholder relies on it. In addition, the accounting field as a stake to safeguard assets, owing to the fact that earning is the final product of the entire accounting process. It will thus be of interest for accounting scholars to observe that their most important variable continue to maintain its relevance in the decision making of various users for varying applications. It is believed that earning is said to be relevant if only it can be relied upon (Iyire 1966). On the other hand, earnings management reduces the needed reliability and hence it relevance (Bugshan 2005). For earning to maintain its importance, there is hence the need to device ways that can be used to enhance the practice of reporting quality earnings. After the recent world major financial crisis in 2008, there is ever increasing need to look up for indicators of earnings reliability.

The reality facing stakeholders of financial reporting is that corporate financial reporting failure has been on the increase, especially in the past decades, window dressed accounts generated concerns in the USA with the collapse of the energy corporation (ENRON) in 2001. The company filed for bankruptcy after adjusting its accounts. WorldCom, Global Crossing and Rank Xerox are other companies in the USA with similar problems. In Italy, parmalat failed in 2003 when it engaged in accounting scandals worth eight billion Euros (Demaki, 2011 and Norwani, et al., 2011).

Nigeria has had its own share of financial reporting failure with the problems in Cadbury Nigeria Plc in 2009, Afribank Nigeria Plc faced problem of financial reporting in 2009, and Intercontinental Bank Plc in 2009. With this development, most countries all over the world decided to set codes of best practice as guideline to address governance and financial reporting anomalies. Thus, reports like Cadbury report in United Kingdom and Sarbanes Oxley in the United States of America were produced. Day Report in Canada, the Vienot Report in France, the Olivencia Report in Spain and the Kings Report in South Africa. The principles and guidelines on corporate governance in New Zealand and the cromme code in Germany. The goal of these regulations was to improve firms’ corporate governance environment (Bhagat and Bolton 2009). In Nigerian, the regulatory authorities have responded by compelling companies to comply with stringent corporate governance codes. Idornigie (2010) reported that Nigeria has multiplicity of code of corporate governance with distinctive dissimilarities namely; Security and Exchange Commission (SEC) code of corporate governance 2003 to guide the operation of public companies listed in the Nigerian Stock Exchange, which was reviewed in 2011, Central Bank of Nigeria (CBN) code of 2006, National Insurance Commission (NAICOM) code of 2009.

In line with the above discussion, every public company is required under section 359(3) and (4) of the CAMA to establish an audit committee. It is the responsibility of the board to ensure that the committee is constituted in the manner stipulated and is able to effectively discharge its statutory duties and responsibilities. At least one board member of the committee should be financially literate; members of the committee should have basic literacy and should be able to read financial statements. At least one member should have knowledge of accounting or financial management, whenever necessary; the committee may obtain external professional advice.

Audit committees have been regarded as integral to quality financial reporting. Companies establish audit committees to improve quality of financial reporting practices and earning, (Ramsay; 2001). The basic functions of audit committee are to oversee the financial reporting process and to monitor managers tendencies to manipulate earnings, regulators in recent years have questioned the effectiveness of audit committee in ensuring that financial statement are fairly stated, and are without earning management. One of the distinctive attribute of this study is the inclusion of audit committee financial expertise, which to the best of our knowledge, in Nigeria, studies in this area have ignored the financial expertise variable.

Studies have been conducted on the role of audit committee in monitoring management (Nelson & Jamil, 2012). These studies provide different opinions on the direction of their association. The outcome of the studies, which are mostly, conducted in developed nations, motivated more studies in the area in order to investigate whether audit Committee characteristics can reduce earnings management in different economies. This is because despite the attention given by practitioners and regulators to corporate failure, it has become the order of the day. This further necessitates the need to investigate the likely impact of audit committee characteristics on earnings management of listed foods and beverages Firms in Nigeria.

By focusing on the listed Food and Beverages Firms in Nigeria, the study identifies a suitable context in which earnings management may be more easily carried out. This is can be clearly deduced from the accounting scandal by Cadbury Nigeria plc which is one of the firms of listed Food and Beverages; where the company’s share price declined from N86.52 per share as at December, 2005 to N8.65 as at October, 2009. This scandal according to Okaro and Okafor (2013) "has since been euphemistically dubbed as Nigerian’s Enron equivalent". Hence, studying audit committee attributes and earnings management in the subsector of manufact-
uring of Food and Beverages is expected to be of great importance considering the fact that it has larger number of Firms. Therefore, this study examines the impact of audit committee characteristics on earnings management of listed foods and beverages Firms in Nigeria.

STATEMENT OF THE PROBLEM

Financial Statements are a major means through which companies communicate to its users its financial results as well as its position. Financial analysts cum investors make use of financial statement to make rational decisions. The Nigerian Accounting Standards Boards, now Financial Reporting Council, in its statement of accounting standards, states that the objective of financial statements is to provide information about the reporting entity’s financial performance and position that are useful for assessing the stewardship of the entity’s management and making economic decision. Some of the qualitative characteristics of this information are reliability, relevance and understandability. To achieve quality of financial reporting, a monitoring committee is often put in place to serve as a watchdog in ensuring that companies produce relevant and reliable information which will eventually protect the interest of both existing and prospective investors. The most important of these monitoring committees is the Audit Committee, which is responsible for the review of audited and unaudited financial statements of organizations thereby improving the quality of such information and reducing the possibilities of unethical or abuse of accounting practices by management when preparing financial statements.

Despite the existence of this monitoring committee, there were a lot of corporate failures in recent years, for instance, the accounting scandals by Cadbury plc, Intercontinental Bank Plc, and Oceanic Bank Plc. This has brought about doubt in the minds of shareholders on the credibility and reliability of financial reports. It was as a result of the foregoing statements that researchers consider it of paramount importance to investigate the effect of this audit committee on earnings management. However, the literature on the relationship between audit committee characteristics and earnings quality is inconclusive. Some studies found positive relationships (Beasley & Selterio, 2001), while others found negative associations (Yang & Krishman, 2005; Lin et al, 2006; Beasley & Selterio, 2001; and kuang & Sharma 2013). And yet, other researchers reported no relationships (Nelson and Jamil 2012). These mix findings make the direction of these relationships to be illusive, and to the best of our knowledge, there is no study in Nigeria that has attempted to resolve the mixed result particularly in listed Food and Beverages Firms in Nigeria.

In Nigeria, studies in this area have ignored the financial expertise variable. The work of Leslie and Okoeguale (2013) and Ugbede, Lizam & Kaseri (2013) only used one independent variable (Audit committee size). Similarly, Fodio et al. (2013) used two variables (audit committee size and audit committee independence). Hassan (2012) used three independent variables. (Audit committee size, audit committee independence and audit committee meetings). The non-use of the financial expertise which is generally believed to play a significant role in the activities of audit committee provided a gap that needed to be filled.

Additionally, the time period covered by some of the previous studies leaves a gap. The works of Leslie and Okoeguale (2013) for instance, covered the period from 2005 to 2010. Hassan (2012) covered the period of 2008 to 2010, and Fodio et al. (2013) covered the period of 2007-2010. These periods can be regarded as not too current as a lot of activities have taken place, which include the changes in the current corporate governance code of 2011 by Nigeria Securities and Exchange Commission. Some of the findings of these studies may not be relied upon in view of the fact that the studies have been taken over by the changes. Similarly, the work of Hassan (2012) covered only three years, this considered too short to enable the generalization of findings. Furthermore, most studies in this area were either conducted in conglomerate sector or banking sector (see Udiale 2012; Fodio et al. 2013; Okoeguale 2013 and Ugbede, Lizam & Kaseri; 2013), and none has specifically covered the listed Food and Beverages Firms in Nigeria.

In view of the above, there is the need to conduct a study with a view to filling these gaps that exist in the literature. This study will therefore seek to answer the question of how audit committee characteristics affect earnings quality of Food and Beverages Firms in Nigeria.

The main objective of this study is to empirically investigate the effect of audit committee characteristics on earnings quality. Thus, the specific objectives are;

i. To determine the influence of audit committee size on earnings quality of Listed Food and Beverages Firms in Nigeria.

ii. To find out the effect of audit committee independence on earnings quality of Listed Food and Beverages Firms in Nigeria.

iii. To ascertain the extent to which audit committee financial expertise affects earnings quality of Listed Food and Beverages Firms in Nigeria.

iv. To examine the influence of audit committee meetings on earnings quality of Listed Food and Beverages Firms in Nigeria.

In order to achieve the above mentioned objectives and to empirically solve the problem of this study following null hypotheses were formulated.

H01 Audit committee size has no significant effect on earnings quality of Listed Food and Beverages Firms in
Nigeria.

$H_{02}$ Audit committee independence has no significant impact on earnings quality of Listed Food and Beverages Firms in Nigeria.

$H_{03}$ Audit committee financial expertise has no significant effect on earnings quality of Listed Food and Beverages Firms in Nigeria.

$H_{04}$ Audit committee meetings have no significant influence on earnings quality of Listed Food and Beverages Firms in Nigeria.

Literature Review and Theoretical Framework

Audit committee size and earnings quality

Most of the regulations including that of Nigeria require the provision of equal number of shareholders and directors to run the audit committee. As highlighted earlier, section 359(6) of the Companies and Allied Matters Act (CAMA) requires every public company to have an audit committee which shall have a maximum of six members of equal representation by three shareholders and three directors. There are different views in literature as to the relationship between audit committee size and earnings management. Nelson and Jamil (2011) examined audit committees and financial reporting quality following the government transformation program in Malaysia. They took the sample of 20 out 33 Firms for the period of 2003 to 2009. They also adopted Dechow and Dichev (2002) model to measure earnings quality. The study revealed a positive relationship between audit committee size and earnings management. This finding was supported by Sharma and Kuang (2013) who studied on voluntary audit committee characteristics incentives and earnings management in New Zealand. The study used a sample of 194 Firms out of 393 Firms listed in New Zealand Stock Exchange Market for the period 2004. They adopted performance adjusted modified Jones model in measuring discretionary accruals. Their finding showed a significant positive relationship between audit committee size and earnings management.

In Contrast, Yang and Krishman (2005) analyzed the relationship between audit committees and earnings management in US using a sample of 896 firm-year observations for the period 1996-2000, found that audit committee size has negative significant relationship with earnings management. This is in consonance with the work of Lin et al. (2006). The above findings make some researchers to posit that larger audit committees are better at maintaining the financial reporting process. For instance, Beasley and Salterio (2001) found that as audit committee size increases, Firms are more likely to include outside directors on the committee beyond the mandated minimum requirements, which enhances audit effectiveness. As such, it can be said that audit committee size constrains earnings management. It could be argued that the above mentioned findings might not be generalized. This is because some of them lack strong evidence to be accepted. This may be due to the limited number of years, which may create doubt as to the reliability and objectivity of their findings because, a data for only one or two years cannot give a clear picture of the required outcomes. For example, the study conducted by kuang and Sharma (2013) on voluntary audit committee characteristics incentives and earnings management in New Zealand used only two years 2004 to 2005.

The studies conducted in Nigeria on the relation between audit committee size and earnings quality, Fodio et al (2013) investigated corporate governance mechanisms and reported earnings quality in listed Nigerian insurance Firms, took the sample of 25 companies for the period 2007 to 2010. The study showed that audit committee size is negatively and significantly associated with earnings management. This supports the work of Leslie and Okoeguale (2013) who study the evaluation of the implication of earnings management determinants in the banking industry. They focused on 18 banks out of the 23 listed for the period 2005 to 2010, and used Pearson product moment correction as technique for analysis. This study revealed that audit committee size is negatively correlated with earnings management. It can be argued that this study used Pearson product moment correlation in determining the association between audit committee size and earnings management which is not strong enough as it can only measure degree of relationship not causation as such it requires the use of strong and more sophisticated statistical tool of analyses like regression in order to measure the actual effect of audit committee and earnings management. Fodio et al (2013) still use discretionary accruals, measured by modified Jones model; in assessing the effect of corporate governance on reported earnings quality of insurance Firms in Nigeria. It is argued that modified Jones model is not applicable in some sectors like banks and insurance companies which was the domain of the researchers. However, because of these different views provided by researchers and literature, the direction of relationship between audit committee size and earnings management is controversial.

Audit committee independence and earnings quality

Prior literature provides divergent opinion on the relationship between audit committee independence and earnings management, but majority of these views concluded that an independent audit committee provides effective monitoring of financial statements which was provided by the management and ensure credibility of
financial reporting. This is inconsistent with the findings of Nelson and Jamil (2012) that showed that the magnitude of audit committee independence influences earnings management as a proxy of financial reporting quality.

Several studies support the negative association between audit committee independence and earnings management which include among others Chtourou et al. (2001) who investigated corporate governance and earnings management using two groups of US Firms, in the year 1996 and showed that income increasing earnings management is negatively associated with a larger proportion of outside members who are not managers in other Firms. This result supports the findings of Meca and Ballesta (2009) who studied corporate governance and earnings management. They adopted Meta analytic technique and analyzed 35 previous studies that examined the effect of corporate governance and earnings management. Their findings revealed that audit committee independence can constrain earnings management thereby improving investors’ confidence.

In another development, other researchers provided no evidence to support the relationship between audit committee independence and earnings management. For example, Baker and Cotter (2009) found no significant association between audit committee independence and earnings management. This is also in line with the findings of Nelson and Jamal (2011) who found a positive but not significant relationship between audit committee independence and earnings management.

Contrary to most findings of prior researches, in Nigeria, Fodio et al. (2013) found a positive significant relationship between audit committee independence and earnings management. Their finding is consistent with that of Shah et al. (2009) who studied corporate governance and earnings management from Pakistani listed companies. He took a sample from 53 listed companies for the year 2006. He employed modified Jones model in measuring earnings management. The finding revealed a positive association between audit committee independence and discretionary accruals.

In line with the above literature, it can be generally said that audit committee independence influences earnings management but the mix of opinion may be as a result of other issues that may negatively affect a general conclusion on the direction of this relationship, for instance Chtourou et al. (2001) used only two groups of US companies one with relatively high and the other with relatively low levels of discretionary accruals for the year 2006 only. Kuang (2007) considered only two years 2004 to 2005. Fodio et al. (2013) adopted modified Jones model to measure discretionary accruals of listed insurance companies when it is not applicable to financial sector, and Shah et al. (2009), used 2006 only as the period of the study. This may create a vacuum for a single period of time with two group companies cannot be used for generalization. In that; it requires additional number of years and companies to see how the likely changes be, and this is what this study tends out to find among others.

Audit committee financial expertise and earnings quality

Most of the global financial regulations mandate that at least one member of the audit committee should be a financial expert. And also, the provision of Companies and Allied Matters Act (CAMA) Section 359 (3) and (4) required that at least one board member of the audit committee should be financially literate. Apart from regulatory requirements, the existing literature also confirms that; for instance, Beasley et al. (2009) documented that audit committees also face incentives to effectively monitor managers in form of legal liability in reputational work. As such, financial expertise is directly linked with better financial reporting quality (Krishnan Visvanathan, 2008). Also Badalato, Denelson and Ege (2013) studied the relationship between audit committee financial expertise and earnings management found that audit committee with both financial expertise and high relative status are more effective at determining earnings management as measured by accounting irregularities and abnormal accruals. The intuition is that higher levels of financial expertise are beneficial to audit committee. This is supported by Salterio (2001) who found that the accounting experience of audit committee members as well as their knowledge of auditing are positively associated with the likelihood that they will support auditors in an auditor- corporate management disputes. This means that financial competence of audit committee members decreases the likelihood of earnings management. This also explains the findings of Chtourou et al. (2001) who examined corporate governance mechanism and earnings management and found that the presence of at least one audit committee member with financial expertise is negatively associated with the levels of earnings management. The result is in line with the work of Sharma and Kuang (2013) who investigated on the voluntary audit committee characteristics, incentives and aggressive earnings management in New Zealand and utilized a sample of 94 Firms from 393 Firms listed on the New Zealand Stock Exchange for the period of 2004 to 2005. They adopted performance modified Jones model to measure discretionary accruals. They also found that audit committee financial expertise is associated with a lower likelihood of aggressive earnings management. This means that the impact of financial literacy could be influenced by the independence of director as indicated above.

Looking at some of the above findings, it may be argued that the work of Kuang and Sharma (2013) on voluntary audit committee’s characteristics, and aggressive earnings management in New Zealand used only two years 2004 and 2005. Therefore, the time frame is too
short. For that the study needs to be revisited by including other periods that were not captured.

**Audit committee meetings and earnings quality**

The audit committee meeting is essential in order to effectively perform its oversight function and monitor management’s performance. This supports the finding of Collier and Gregory (1999) who studied audit committee activity and agency cost in UK. Using a sample from UK major companies listed on the London Stock Exchange for the year 1991, they documented that the frequency of audit meetings is assumed to increase the effectiveness of monitoring. This indicates that the more often an audit committee meets the more likely it is to have fewer financial problems (Menon Williams 1994). The practitioner, Price Water House (1993) suggests that audit committees should meet at least four times a year and make provisions for special meetings when necessary. Beasley (1996) also recommends that for audit committee to fulfill their monitoring responsibility effectively, they should meet at least once to review interim and annual sec filings. Like other audit committees attributes, different opinions also exist in literature as to the relationship between audit committee meetings and earnings management. Xie et al. (2003) found that the frequency of audit committee meetings is negatively associated to current discretionary accruals. Chtourou et al. (2001) found that meeting more than twice a year is positively associated with positive earnings management.

Considering the recommendations of practitioners like price Water House (1993) and the findings of Beasley (1996), and Xie et al. (2001), several existing literatures provide evidence to support insignificant relationships between audit committee meetings and earnings management. (See Uzun, Szewczyk and Varma, 2004; Nelson and Jamil, 2011, 2012; Bedard et al., 2004; & Baxter and Colter, 2009). These mix results are required to be revisited so as to be able to identify the actual effect of these variables (audit committee meetings and earning quality).

**Agency theory**

This study has adopted agency theory to explain the relationship between audit committee and earnings quality of listed Food and Beverages Firms in Nigeria. Agency theory originated from the work of Berle and Means (1932). They explored the concept of agency and the applications toward the development of large corporations. They found out how the interest of the directors and managers differ from the owners of the firm, thereby using the concepts of agency- principal to explain the genesis of those conflicts. Jensen and Meckling (1976), further on the work of Berle and Means (1932), to develop agency theory as a formal concept. They also formed a school of thought arguing that corporations are structured to minimize the costs of getting agents (agency costs) to follow the direction and interests of the principals. The theory essentially acknowledges that different parties involved in a given situation with same given goal will have different motivations, and these differences can manifest in divergent ways. This means that there will always be partial goal conflict among parties, because efficiency is inseparable from effectiveness, and thus information will always be somewhat asymmetric between principal and agent.

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

Considering earnings management practice, agency theory explains clearly the existence of the incentive for management to use earnings management. Therefore, Salah (2010) (in Abdul Rauf et al., 2012) suggests that, management could use earnings to mislead shareholders by showing a different image of the company’s earnings.. For the purpose of this research, agency theory is adopted. This is due to the fact that it elucidates the relationship between the agents (management) and the principal (shareholders). In the same vein, audit committee, apart from serving as monetary measures, equally represents the shareholders who are the principal since their composition constitutes equal number of shareholders and directors. The directors therefore are acting on behalf of the shareholders. While the other aspect of the agency theory are the management (agents) who are responsible for the preparation and fair presentation of financial statements in accordance with Nigerian Statement of Accounting Standard (SAS), they also assumed to make sure that the financial statements are free from material misstatement, whether due to fraud or error. This at the tail end is subject to confirmation, review and verification by the audit committee in order to make sure that the accounting policies are in line with the legal requirements and ethical practices. Therefore agency theory is found to be relevant because it explains the audit committee which functions as a monitoring mechanism to reduce agency cost (Menon Williams 1994).

**Research Methodology and Model specification**

**Research Design**

A correlational research design was adopted due to the fact that the study measures relationships between audit...
committee characteristics and earnings quality of listed food and beverages firms in Nigeria. The population consists of all listed food and beverages firms in Nigeria for the period 2009-2014. The study covers the period of six years (2009-2014). The choice of these companies (food and beverages firms) was as a result of the model of the study (Modified Jones Model 1995) which is only applicable to non-financial institutions. The study intended to take the entire population, but did not provide all the required information. For that, filtering is used as sampling criteria in the following manner that is the company must have published its financial statements for the period of the study (2009 to 2014), and that any firm that was listed after 2009 was excluded. After the application of filtering criteria, eight companies were qualified, the remaining were filtered because they did not provide the available information required necessary for the study. Ordinary least square regression is adopted to empirically run the regression using STATA as tool of analysis. STATA was used because the study extracts the residual with it. The study uses correlation in order to determine the relationships between the variables of the study. Regression is employed because the study wants to determine the cause and effect of each variable. And finally, the study conducted robustness tests like, Hausman test and Heteroscedasticity test and Multicolinearity test in order to improve the validity of statistical inferences.

**Variables Measurement and Model Specification**

The variables of the study consist of Dependent Variable which is Earnings quality measured by discretionary accruals using modified Jones model by Dechow et al. (1995). This was done by conducting the analysis in two stages- extracting the residuals from the modified Jones model first and then run the regression with the model of the study.

The independent variables Audit Committee characteristics were proxied by Audit Committee size, audit committee independence, audit committee meetings and audit committee financial expertise. This is shown in Table 1.1, which contains each variable with their respective definitions.

**Table 1.1 Variable Measurement and Definition.**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition and Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings Management</td>
<td>Measured by absolute values of the residuals (discretionary accruals) using Modified Jones model by Dechow et al. (1995). This will be explained below.</td>
</tr>
<tr>
<td>Audit Committee Size (ACSIZ)</td>
<td>Measured as the total number of audit committee members</td>
</tr>
<tr>
<td>Audit Committee Independence</td>
<td>Proportion of non-executive directors in the audit committee</td>
</tr>
</tbody>
</table>

As shown in Table 1.1, this study employs the modified Jones model, which estimates abnormal accruals (Discretionary accruals) as prediction error from ordinary least square regression as follows. TOTAL ACCRUALS = Q_i(t) + \beta_1(\text{REV}_i(t) - \text{REC}_i(t)) + \beta_2\text{PPE}_i(t) + \epsilon_i(t) - \Delta \text{REC}_i(t) - \Delta \text{PPE}_i(t)

\[ \text{TA}_i(t) = \text{NI}_i(t) - \text{CFO}_i(t) \]

\[ \text{TAC}_i(t) = \text{TA}_i(t) - \text{CFO}_i(t) \]

\[ \text{DACC}_i(t) = \beta_0 + \beta_1 \text{ACSIZ}_i(t) + \beta_2 \text{ACMET}_i(t) + \beta_3 \text{ACFEP}_i(t) + \beta_4 \text{FSIZ}_i(t) + \beta_5 \text{LEV}_i(t) + \epsilon_i(t) \]

Where:
\[ \beta_0 = \text{Constant} \]
\[ \text{ACSIZ} = \text{Audit committee size of firm i in time t} \]
ACIND = Audit Committee Independence of firm i in time t  
ACFEP = Audit Committee Financial Expertise of firm i in time t  
ACMTN = Audit Committee meetings of firm i in time t  
FSIZ = Firm Size of firm i in time t  
LEV = Leverage of firm i in time t  
ε = other factors that were not captured by the mode

RESULTS AND DISCUSSIONS

Descriptive statistics

The descriptive statistics shows the nature of each of the variable of the study. This includes the minimum, maximum, mean, standard deviation as presented in table 4.1

<table>
<thead>
<tr>
<th>Variables</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>DACC</td>
<td>0.00454</td>
<td>0.27207</td>
<td>0.0715294</td>
<td>0.0643458</td>
</tr>
<tr>
<td>ACSIZ</td>
<td>4</td>
<td>9</td>
<td>5.791667</td>
<td>0.8741764</td>
</tr>
<tr>
<td>ACIND</td>
<td>0.17</td>
<td>0.6</td>
<td>0.37375</td>
<td>0.1190499</td>
</tr>
<tr>
<td>ACFEP</td>
<td>0</td>
<td>0.6</td>
<td>0.2689583</td>
<td>0.130779</td>
</tr>
<tr>
<td>ACMTN</td>
<td>2</td>
<td>5</td>
<td>3.708333</td>
<td>0.9443749</td>
</tr>
<tr>
<td>FSIZ</td>
<td>15.8</td>
<td>19.4</td>
<td>17.555</td>
<td>0.9317702</td>
</tr>
<tr>
<td>LEV</td>
<td>0.014</td>
<td>0.68</td>
<td>0.407772</td>
<td>0.2318449</td>
</tr>
</tbody>
</table>

Source: Extracted from STATA™ output.

Table 4.1 shows that the minimum value of discretionary accrual is 0.00454 and the maximum is 0.27207. This implies that the firm that has higher discretionary accruals signify higher earnings management and those with lower discretionary have lower earnings management as pointed out by (McNichols, 2002) The discretionary accrual determines the accrual quality, the larger the residuals, the lower the quality of accruals and vice versa.

The audit committee size shows a minimum and maximum of four and nine respectively. This means that the smallest number of audit committee members of listed food and beverage Firms in Nigeria is four and the largest number is nine. This shows that some Firms have violated the maximum requirement of six members as provided in CAMA 1999 as well as the SEC code of corporate governance (2011). Also, the mean of the committee size is 5.791667 which signifies that on the average it can be said there are approximately six members in the audit committee of listed Food and Beverages in Nigeria. Thus, it can be said that on the average there is a compliance of the requirement of CAMA 1999 and the SEC code of corporate governance (2011), with regards to the provision of equal representation of three shareholders and three directors.

For audit committee independence, the table shows a minimum and maximum of 0.17 and 0.6 respectively. This implies that the smallest proportion of non executive directors in the audit committee is 0.17 and the largest proportion is 0.6. This means that there is at least one non executive director in the composition of six members of the audit committee of all the sampled listed food and beverages Firms. In addition, there are at most three non executive directors in the composition of five audit committee members of the Listed Food and Beverages Firms. Again, the mean is 0.37 , which shows the average composition of non executive directors of Listed Food and Beverages in Nigeria.

Additionally, the audit committee financial expertise shows a minimum of 0 and maximum of 0.6. This implies that there are some Firms that do not have any member with financial expertise in their audit committees, while there are others that have up to 60 members with financial expertise out of five members of the committee. This indicates that some Listed Food and Beverages Firms did not comply with the international recommendation of having at least one audit committee member with financial expertise, even though the provision of CAMA (1990) and SEC code of corporate governance (2011) is that companies’ audit committee members should have at least one member with financial literacy not specifically financial expertise. Also, the table shows that the mean of audit committee expertise is 0.130779, an indication that the average proportion of members with financial expertise in the audit committee of listed food and beverages in Nigeria is 13 percent.

Similarly, for audit committee meetings, there is minimum of two and maximum of six meetings respectively. This means that the lowest number of meetings held by Listed Food and Beverages in Nigeria during a year was two and the highest is six. The mean of 3.708333 from the table, shows the average meetings held by the listed food and Beverage within the period of the study.

Correlation Matrix

The correlation matrix is used to determine the degree of relationship between the dependent and independent variables of the study as well as independent variables themselves. These associations among the variables of the study are presented in Table 4.1.

<table>
<thead>
<tr>
<th>Variabes</th>
<th>DACC</th>
<th>ACSIZ</th>
<th>ACIND</th>
<th>ACFEP</th>
<th>ACMTN</th>
<th>FSIZ</th>
<th>LIV</th>
</tr>
</thead>
<tbody>
<tr>
<td>DACC</td>
<td>1.000</td>
<td>0.2778</td>
<td>0.0208</td>
<td>0.2525</td>
<td>0.2545</td>
<td>-0.2854</td>
<td>0.1906</td>
</tr>
<tr>
<td>ACSIZ</td>
<td>1.000</td>
<td>0.0100</td>
<td>0.0940</td>
<td>0.1568</td>
<td>-0.0078</td>
<td>0.0735</td>
<td></td>
</tr>
<tr>
<td>ACIND</td>
<td>1.000</td>
<td>0.2123</td>
<td>0.0781</td>
<td>-0.0380</td>
<td>0.3304</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACFEP</td>
<td>1.000</td>
<td>0.1610</td>
<td>0.1917</td>
<td>0.0613</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACMTN</td>
<td>1.000</td>
<td>0.0626</td>
<td>0.1942</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSIZ</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIV</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Extracted from STATA™ output.

From Table 4.1, it can be observed that there is a weak negative relationship between audit committee size as
well as audit committee financial expertise and earnings management of listed food and beverages in Nigeria. Also, the control variable (firm size) has a negative relationship of -0.2854 with earnings management of listed food and beverages in Nigeria. This indicates there are inverse relationships between audit committee size, audit committee financial expertise, firm size and earnings management. Additionally, audit committee independence, audit meetings and leverage are positively correlated with earnings management of listed food and beverages in Nigeria. This correlation matrix will not serve as a basis for generalization on the actual relationship between audit committee characteristics and earnings management as correction matrix only gives a mere degree of association between the dependent variable and the independent variables themselves. Thus, regression shows causation. It can be observed that the relationship between the independent variables themselves are not significant, is an indication that multi Colinearity may not pulse problem to the model of the study. This can be clearly observed from the two indicators (i.e. tolerance value and variance inflation factor VIF) which are within less than 1 and less than 10 respectively (see appendix II D).

Regression Results

Table 4.1: Summary of regression result.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>T-Values</th>
<th>P-Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.6802</td>
<td>3.9800</td>
<td>0.000</td>
</tr>
<tr>
<td>ACSIZ</td>
<td>-0.0239</td>
<td>-2.7000</td>
<td>0.010</td>
</tr>
<tr>
<td>ACIND</td>
<td>0.1001</td>
<td>1.4000</td>
<td>0.168</td>
</tr>
<tr>
<td>ACFEP</td>
<td>-0.2010</td>
<td>2.6900</td>
<td>0.010</td>
</tr>
<tr>
<td>ACMTN</td>
<td>0.0154</td>
<td>1.8200</td>
<td>0.076</td>
</tr>
<tr>
<td>FSIZ</td>
<td>-0.0303</td>
<td>-3.4700</td>
<td>0.001</td>
</tr>
<tr>
<td>LEV</td>
<td>0.0568</td>
<td>1.5600</td>
<td>0.126</td>
</tr>
<tr>
<td>R²</td>
<td>0.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Stats</td>
<td>5.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F- Prob.</td>
<td>0.0005</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Extracted from STATA10 output.

\[
DACC = \beta_0 + \beta_1 ACSIZ + \beta_2 ACIND + \beta_3 ACM + \beta_4 ACF + \beta_5 FSIZ + \beta_6 LIV + \epsilon
\]

\[
DACC = 0.6802 -0.0239(ACSIZ) +0.1001(ACIND) -0.2010 (ACF) +0.0154 (ACM) -0.0303(FSIZ) +0.0568 (LIV)
\]

Discussion of Findings and Implications

i. Audit Committee Size and Earnings Quality

Table 4.1 shows that there is a negative significant relationship between audit committee size and earnings management of listed Food and Beverages Firms in Nigeria. This can be observed from the coefficient of -0.0239 with p value of 0.010 which is significant at 1 . This indicates that the size of audit committee members is negatively impacting on earnings management of Listed Food and Beverages Firms in Nigeria. The implication of this result is that, larger audit committees are better at reducing earnings management of listed Food and Beverages Firms in Nigeria. This confirms the belief that larger audit committees are better at maintaining the financial reporting process. Consequently, the result produces a basis for rejecting the first null hypothesis formulated which presumed that audit committee size has no significant effect on earnings management of listed food and beverages in Nigeria. This is in line with the findings of Yang and Krishman (2005) that also documented that audit committee size is negatively and significantly associated with earnings management. It is also consistent with the findings of Lin et al (2006), Beasley and Salterio (2001), Fodio et al (2013), and contradicts the findings of Nelson and Jamil (2011), Kuan and Sharma (2013) and Baxter and Colter (2009) who documented that audit committee size is positively and significantly related to earnings management.

ii. Audit Committee Independence and Earnings Management

The audit committee independence is positively but insignificantly associated with earnings management of listed food beverages Firms in Nigeria with p value of 0.168 and beta coefficient of 0. 1001. This implies that audit committee independence may not serve as a means of reducing earnings manipulation by managers. This is because; members of the audit committee might not be financially literate enough and may not have the industry experience which allows for monitoring effectiveness. This also serves as a justification for the rejection of the second null hypothesis formulated which stated that audit committee independence has no significant impact on earnings management of listed Food and Beverages Firms in Nigeria. This is in consonance with the finding of Fodio et al. (2013) who showed that audit committee independence is positively associated with earnings management. Their finding makes them to posit that audit committee independence might not guarantee that managers would not manipulate earnings. This is consistent with the findings of Xie et al. (2001) and Shah et al. (2009) who also found a positive relationship between audit committee size and earnings management. The study contradicts the findings of Nelson and Jamil (2012), Chtourou et al. (2001) Klein (2002) and Meca and Ballesta (2009).

iii. Audit Committee Financial Expertise and Earnings Management

In addition, the model also provides evidence of a significant negative relationship between audit committee financial expertise and earnings management of listed food and beverages Firms in Nigeria. This can be deduced
from the coefficient of -0.2010 and p value of 0.001, indicating 1 level of significance. This implies that financial expertise as one of the proxies of audit committees is negatively related to earnings management, which means that audit committee financial expertise reduces the negative effect of earnings management of listed food and beverages Firms in Nigeria. This may not be surprise as directors with sound accounting and financial knowledge must have the ability of detecting fraud and manipulation of accounting numbers. The results therefore serve as a basis for rejecting the third null hypothesis formulated as audit committee financial expertise has no significant effect on earnings management of listed Food and Beverages Firms in Nigeria. This is consistent with the work of Chtourou et al. (2001) who found that the presence of at least one audit committee member with financial expertise is negatively associated with the levels of earnings management, Badalato et al. (2013) who found that audit committee with financial expertise is more effective in detecting earnings management as measured by abnormal accruals and Kuang and Sharma(2013) equally found that audit committee financial expertise is associated with lower likelihood of aggressive earnings management.

iv. Audit Committee Meeting and Earnings Management

The table reveals that audit committee meetings have significant positive relationship with earnings management of listed food and beverages Firms in Nigeria at 10 level of significance. This is observable from table 4.3 containing a beta coefficient of 0.0154 with 0.076 p-value. This implies that meetings up to four times do not guarantee better monitoring of earnings management of listed food and beverages Firms in Nigeria. This is because, in our sample Firms, it can be observed that audit committees met two to five times. This may be as result of the fact that the more often the directors meet; the more they divert their attentions in doing others things distinct or different from the overall objectives of the firm. This also provides a basis for rejecting the last null hypothesis which states that audit committee meetings have no significant relationship with earnings management of listed food and beverages Firms. This supports the findings of Chtourou et al. (2001) who documented that meeting more than twice a year is positively associated with earnings management. The result contradicts the findings of Uzun, Szewczyk and Varma (2004), Nelson and Jamil (2011), Nelson and Jamil (2012), Bedard et al. (2004) and Baxter and Colter (2009) who found no significant relationship between audit committee and earnings management. It is also not consistent with the findings of Xie et al. (2003) and Beasley (1996) who found that frequency of audit committee meetings is negatively associated with discretionary accruals.

Finally, the model again shows that the control variable-firm size is negatively and significantly related to earnings management of listed food and beverages Firms in Nigeria. This implies that, larger Firms are better at monitoring management which will result in reducing earnings management. This justifies the assertion of Hassan and Bello (2013) that large Firms usually have strong internal control systems and governance mechanisms, and therefore can access high quality services from large audit Firms, and care for its reputations. This is in line with Bedard et al. (2004) who found that larger Firms are likely to have more effective internal control systems and face more scrutiny in the market. The positive but insignificant relationship between leverage and earnings management indicates that the model of the study can stand even without for controlling leverage.

Overall, the combined and the overall impact of the repressors- audit committee characteristics (audit committee size, audit committee independence, audit committee financial expertise and audit committee meetings) on earnings management of listed food and beverages Firms in Nigeria, is shown on the model summary of the regression results. The F-statistics of 5.23 which is significant at 1% (0.0005) reveals the model is well fitted, while the coefficient of determination R^2 of 44%, explains the individual variation of the dependent variable (discretionary accruals) as a result of the changes in the independent variable. It can be said that, audit committee characteristics (audit committee size, audit committee independence, audit committee financial expertise and audit committee meetings) and firm size have combined predictive power of 44 in impacting on earnings management of listed Food and Beverages Firms in Nigeria, while the remaining 56 is accounted for by other factors which are not captured in the model.

Robustness Test

The robustness tests were conducted in this study to improve the validity of the statistical results. These include Multi-colinearity test, Heteroscedasticity test and Hausman specification tests. The results reveal that there is absence of Multicolinearity and Heteroscedasticity as explained above. This is clearly shown from the result in Appendix II D. The result from the fixed effect reveals that chi^2 is not significant at 5, while the random effect shows that chi^2 is significant at 1%, and then the Hausman test considers random effect as the appropriate estimator on the basis that fixed effect was uncorrelated with our variable as it was not statistically significant at (0.05) see appendix. To further substantiate that the Random Effects can be tested by using the Breusch-Pagan LM Test. The large Chi^2 values show that the null hypothesis is rejected in favour of the random group
effect model. This study shows Chi² of DAC is 0.56 as against p-value of 0.4561. This indicates that OLS is more appropriate.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study has empirically provided evidence on the relationship between audit committee characteristics proxy by audit committee size, audit committee independence, audit committee financial expertise and audit committee meetings, and earnings management of listed food and beverages in Nigeria. Consequently, based on the findings of the study, the following conclusions are drawn.

The presence of negative significant relationship between audit committee size and earnings management of listed food and beverages Firms in Nigeria made conclude that larger audit committee members are more effective in monitoring the activities of the management, and they are also better at maintaining the financial reporting process. Similarly study also asserts that audit committee members with financial knowledge are better in detecting earnings management thereby reducing the likelihood of aggressive earnings management provided by managers.

It is further established that audit committee independence might not guarantee that managers would not manipulate earnings.

Additionally, the study concluded that, audit committees meetings more up to four times will not result in more effective monitoring. This is the reason why this study found positive relationship between audit committee meetings and earnings management of listed food and beverages in Nigeria, as some Firms held up to five meetings within a particular period of time.

Finally, it also concluded that larger Firms have strong internal control systems and governance mechanisms which allow them to access high quality services from large audit Firms. This will go a long way in reducing earnings management established by managers. In the vein, audit committee characteristics of listed food and beverages influence earnings management since the proxies of these committees are significantly associated with earnings management of listed food and beverages Firms in Nigeria.

RECOMMENDATIONS

In line with the findings and the conclusions of the study, the following recommendations are proffered.

i. The shareholders of listed food and beverages Firms in Nigeria should ensure strict compliance with the provisions of Companies and Allied Matters act (CAMA) of having six members of equal representation three shareholders and three directors. In our sampled Firms, the study found some of them have only four audit committee members during a particular period of time.

The regulators such as SEC should compel those Firms to strictly abide by these rules and regulations by providing a fine or penalty on any company that contravenes such law. The composition of audit committee members should clearly be spelt out so as to enable them perform their functions effectively, because SEC is silent with regards to the composition of audit committee members. The composition may be stated in such a way that the independent members should have financial knowledge, resulting in dual attributes like audit committee independence with financial knowledge rather than independence alone. There is the need for regulators like SEC to increase the minimum number of members with financial expertise in the audit committees. Instead of one member; they might also make it compulsory that the chairman of the audit committee should be a person with strong financial analysis background or a professional accountant. As audit committee financial expertise plays significant role in checkmating the financial reports provided by managers and in reducing the likelihood of earnings management.

ii. Furthermore, it is recommended that meetings shall not be more than four times, because meetings held more than four times do not guarantee better monitoring. The regulators too should have a statutory position on the maximum number of audit committees meetings, as SEC code of corporate governance is silent on this.

Limitations of the study

Like any other research, our study is also associated with some limitations. These limitations include the following:

i. The study is only limited to the domain of the listed Food and Beverages Firms in Nigeria. As such, our findings and recommendations are only applicable to listed Food and Beverages Firms in Nigeria.

ii. The study also finds it somewhat confusing in determining audit committee independence, because, there are two different views in the existing literature on the definition of audit committee independence. Some studies used non executive directors as proxies, for example, Fodio et al. (2013), while others used proportion of independent directors in the audit committee for example Klien (2002), Kuang (2007). This study uses proportion of non executive directors in the audit committee as proxy for audit committee independence, because, in our sampled Firms none of them have independent directors in the composition of their audit committee to the best of our knowledge, even though some researchers use proportion of independent directors as their proxies.

Suggestions for Further Research

i. The study examines the influence of audit committee characteristics on earnings management of listed...
food and beverages in Nigeria for the period of six years 2009-2014. For that there is the need in future to replicate the study and cover the periods beyond 2014. Furthermore, there is also the need for future researchers to incorporate financial expertise or knowledge with the independence or composition of directors in the audit committee.

iii. Further research may be needed to be conducted on the audit committee attributes in other sectors other than manufacturing like financial institute.

REFERENCES

Kuang C (2007). Audit committee characteristics and earnings management. A dissertation submitted to Auckland University of Technology, New Zealand