Moderating Effect of Audit Committee Financial Expertise on the Relationship between Audit Quality and Earnings Management of Quoted Consumer Goods Firms in Nigeria

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Abstract
This study examined the moderating effect of audit committee financial expertise on the relationship between audit quality and earnings management among quoted consumer goods companies in Nigeria. Earnings management as dependent variable was proxied by discretionary accruals while audit quality is explained using audit fees and auditor industry specialization. The study adopted Ex post facto research design. Population included all the 21 companies in the consumer goods sector. The study purposively, sampled 17 out of the entire population for the purpose of data collection. The study covered the period 2012 to 2021. Secondary data were extracted from the annual accounts of the companies for the period of the study. The study employed the use of multiple regression technique to analyse the data. The result of the study showed that both audit fees and auditor industry specialization have positive significant relationship with earnings management when moderated by audit committee financial expertise. The study concluded that both variables can be used as determinants of real earnings management when there is a financial expert on the audit committee. From the findings, it was recommended that efforts should be made with respect to legislations to strengthen auditors’ quality in Nigeria by ensuring that audit committee members have financial expertise since it is a viable corporate governance tool towards enhancing reported earnings quality.

Keywords: Earnings Management, Audit Fees, Auditor Industry Specialization, Consumer Goods Companies

JEL Classification: D21, P34

1. Introduction
The 21st century recorded greater concerns globally, about audit quality where severe failures have come to light. Corporate scandal such as Enron in 2001; Parmalat in 2003; Cadbury Nigeria Plc in 2006; Afribank Nigeria Plc in 2009 and the most recent collapse of giant companies like carillion in Italy, Patisserie Valerie and London Capital and Finance in the UK, failings in South Africa’s state-owned entities Transnet, Eskom, and South African Airways and the 1MDB scandal in Malaysia are evidences of this impasse. This has attracted a great deal of attention concerning the reliability of
external auditors report since high-quality external auditing is considered a vital element of a well-functioning capital markets. The performance of independent auditors is deemed fundamental to the functioning of the financial and capital markets based on the assumption that, by issuing an opinion on the reliability of accounting information, it contributes to a business environment characterized by trust and credibility (Newman, Patterson & Smith, 2005; Ojo, 2008; Zagonov, 2011). However, with the corporate scandals at the start of the 21st century, characterized by fraud and accounting manipulations, much has been discussed about the scope of responsibilities of auditors, given that the opinion on financial statements has not changed. Also, financial statement audit is a monitoring mechanism that helps reduce information asymmetry and protect the interests of the various stakeholders by providing reasonable assurance that the management’s financial statements are free from material misstatements. The societal role of auditors should be a key contributor to financial performance, in terms of reducing the risks of significant misstatements and by ensuring that the financial statements are elaborated according to preset rules and regulations. Lower risks on misstatements increase confidence in capital markets, which in turn lowers the cost of capital for firms (Heil, 2012; Watts & Zimmerman, 1986). The statutory audit can reinforce confidence because auditors are expected to provide an external, objective opinion on the preparation and presentation of financial statements. Auditors need to be independent in the opinions they express, while the work they have to do to form their opinions is highly dependent on and rooted in the real world and may become challenging in some business environments such as the consumer goods sector. It is against this background that this research work is carried out.

Furthermore, the extent to which corporate governance mechanisms affect real activities earnings management differs between external audit. Specifically, external auditors cannot challenge real economic actions made in the ordinary course of business. Thus, enhancing the scrutiny of external auditors over accruals earnings management may drive managers to substitute the reduction of accrual earnings management with real activity earnings management. This argument gave rise to a new stream of research that investigates the effect of audit quality on real earnings management. Though there are existing studies on the effect of audit quality and real earnings management around the world, few studies examined this phenomenon in Nigeria. Other studies in this area include (Hoang Khanh & Khuong, 2018; Alzoubi, 2017; Ghosh & Moon, 2005; Gul, Fung & Jaggi, 2009; Krishnan, 2003; Rusmin, 2010). However, most of these studies are foreign-based and given the disparities in the nature of economies, the level of sophistication in the monitoring mechanisms and litigation risks faced by external auditors, studies from Nigeria may produce different results. Again, most of the prior studies on audit quality and earnings management in Nigeria such as Okolie, Izedonmi and Enofe (2013) and Okolie (2014) focused more on accrual-based earnings manipulation which has a proxy of earnings management. This approach limits the generalizability of findings concerning the effect of audit quality on
real earnings management of firms in Nigeria in general and quoted consumer goods companies in Nigeria which have been ignored by prior studies. This constitutes one of the gaps in the literature that this study attends to fill. This study highlights the methodological gap that the study intends to address. Most of the studies which were conducted in developing countries including Nigeria did not make use of industry specialist auditors as an audit quality attributes. However, extant literature suggests that it could affect earnings management practices of firms. Thus, industry specialist auditors are familiar with the business operations of the industry of their specialization and also possess industry relevant experience and knowledge that enable them to audit companies in the industry more effectively than their counterparts (Minutti- Meza, 2013; Sarwoko & Agoes, 2014). Also, previous studies ignored the intervening effect of audit committee financial expertise on the relationship between audit quality and real earnings management. This current study will close this gap in literature. Given these puzzles and the gap existing in literature, this study empirically examined the combined effect of audit fees and auditor industry specialization on real earnings management of quoted consumer goods companies in Nigeria with audit committee financial expertise as a moderator. This study is based on two hypotheses that $H_1$: Audit committee financial expertise as a moderator has no significant effect on the relationship between audit fees and real earnings management of quoted consumer goods companies in Nigeria, $H_2$: Audit committee financial expertise as a moderator has no significant effect on the relationship between auditor industry specialization and real earnings management of quoted consumer goods companies in Nigeria.

2. Literature Review

Basically, earnings management has numerous classifications. One of the earnings management activities is called real activities manipulation or real earnings management. This is also a “within-GAAP” earnings manipulation but is different from earnings management through accounting choices and is hardly subjected to auditor scrutiny. Earnings management through real activities manipulation involves management actions that deviate from normal business practices, undertaken with the primary objective of meeting certain earnings thresholds (Royerchowdhury, 2006). Xuerong and Li (2017) defined earnings management (REM) as management operational activities to alter reported earnings in a particular direction, which is achieved by overproducing inventory to lower the cost of goods sold (COGS) or cutting discretionary expenses (i.e., advertising expenditures, research and development, deferred taxes) to achieve a specified earnings level. Examples of real activities manipulation include but not limited to earlier spending on maintenance or research and development (R&D). Merchant and Rockness (1994) described 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.
International Standards on Auditing defines Audit fees as “the amount that remunerates the financial auditor’s activity, the certification of financial statements”. The code of Ethics for professional accountants stated that audit fees should be calculated in an objective way and the auditor’s independence should not be influenced by them. Audit fee can be explained to be the amount charged by the auditor for an audit assignment carried out. That is, the amount charged by the auditor for any work done in order to express opinion on the true and fair state of affairs or position of the client’s enterprise. Iskak (1999 in Suharli and Nurlaelah, 2008) described audit fee as the fee charged by a public accountant to the client for the financial audit services. This is in accordance with the opinion of The Securities and Exchange Commission, Final Rule (in Yuniarti, 2011) that the audit fee is the fees paid for annual audits and reviews of financial statements for the most recent fiscal year. The amount of audit fee can vary depending on the complexity of services, assignment risk, the cost structure of Public Accountants Firm, the required level of expertise, and other professional considerations.

Industry specialist auditors are auditors who have gained great training and experience concentrated in a specific industry. Solomon et al. (1999) averred that industry specialist auditors have more accurate non-error frequency knowledge than non-industry specialists. Owhoso, Messier and Lynch (2002) suggested that industry specialists can more effectively detect seeded errors in staff work papers during the audit review process. Low (2004) finds that auditors’ industry specialization improves their audit risk assessments. Hammersley (2006) found that matched specialists (i.e., specialists working in their industry) develop more complete problem representations about the seeded misstatement when they receive partial- or full-cue patterns than when they receive no-cue patterns, whereas mismatched specialists are not able to develop more complete problem representations even when they receive full-cue patterns. These behavioral auditing studies suggest that auditor industry specialization can enhance the effectiveness of auditors’ work as a result of their greater industry-specific knowledge.

Unlike the size criteria that was specified by CAMA (2004), the expertise criteria were specified in Nigeria by the 2011 and 2018 SEC Codes, 2006 Post consolidation CBN code amongst other codes. These codes specify that at least, a member of the audit committee must possess financial management and accounting knowledge. The US SEC also has a similar condition as it expects that firms must have at least one person with financial expertise. Juhmani (2017) asserted that the availability of an accounting and financial knowledge in the audit committee would enhance its efficiency and its ability in detecting and preventing earnings management. Kibiyyaa, Ahmada and Amran (2016) also buttressed in their study that the presence of a member with financial literacy or knowledgeable in accounting, finance or financial management will enhance the quality of the financial report. However, Dhaliwal et al. (2006) noted that the expertise criterion given is broad in terms of definition. They
claim that persons with financial expertise can mean any of the following (1) certified public accountant, auditor, financial officers, or controllers (2) anyone that has worked in a supervisory role that involves financial statement preparation. Thus, expertise can be technical or supervisory in nature but the contention is that which of this nature of expertise is fundamental to audit quality? Is it technical/accounting or supervisory/financial management? Livingston (2003) provides evidence that supervisory expertise does not translate to effective understanding of accounting issues and may not ensure audit quality. This is buttressed by Dhaliwal et al. (2006) who investigated various types of expertise against audit quality and found that only accounting expertise had a significant effect on audit quality.

Empirical Review
Emeka-Nwokeji and Ojinta (2016) examined the relationship between audit fee and earnings management of pharmaceutical firms in Nigeria using total accrual management. Archival data were extracted from annual reports of selected quoted pharmaceutical firms in Nigerian Stock Exchange which was based on panel data ranging from 2006 – 2015. Ex post facto research design was used. Descriptive statistics correlation and panel multiple regression were used to analyse the data. The result of the regression showed that all the independent variables (firm size, firm complexity, and type of audit firms were generally and positively significant to the level of total accruals since the p-value is 0.4 i.e 4%. The study although, done in Nigeria did not capture so many variables in the audit quality literature as variables such industry specialization and tenure are good determinants of audit quality. Ching, Tehand San (2015) investigated the relationship between audit fees and earnings management for a sample of one hundred (100) industrial products and consumer products companies listed on the main board of Bursa Malaysia during the period of 2008-2013. Audit quality was proxy by audit firm size, audit fees, and audit partner tenure. Earnings management, represented by absolute discretionary accruals was estimated by the modified Jones (1991) model. The result of the data analysed indicated that both audit firm size and audit fees have insignificant negative relationship with earnings management of listed industrial products and consumer products companies in Malaysia. Audit partner tenure had an insignificant positive relationship with the sampled companies in Malaysia during the study period. However, findings from this study may not apply to listed consumer goods companies in Nigeria because of some legal and economic differences between Nigeria and Malaysia such as the level of capital market development. Okolie, Izedom and Enofe (2013) examined the impact/relationship between audit quality and earnings management represented by companies’ discretionary accruals manipulations in Nigeria. Archival data were extracted from annual reports of 57 quoted companies in Nigeria between 2006 and 2011. Audit Firm Size, Audit Fees, Auditor Tenure and Audit Client Importance served as audit quality proxies. The number of Discretionary Accruals (DAC) was used to measure earnings Management. The results showed that audit quality was significant and negatively related to the amount of DAC of quoted companies in Nigeria. The
study population was not specifically stated before the 57 samples were drawn. Also, the result of findings of the various variables was not defined for understanding.

Yasser and Soliman (2018) examined the effect of Audit quality on Earnings Management in the listed firms in Egypt. In this research, OLS regression analysis is used to explore the relationship between Audit quality proxies which are Audit firm size, auditor industry specialization and auditor tenure and Earnings management in listed companies during the period 2012-2016. The results revealed that; auditor tenure has a significant positive relationship with earnings management, while the rest of the hypotheses indicate that the other variables remain to have an insignificant relationship with earnings management. Hegazy (2017) investigated the effect of industry specialization on the audit quality and earnings quality. It examines the relation between industry specialization and earnings quality, financial reporting quality, and audit quality. The research posits that industry specialization constrains earnings management. In addition, it hypothesized a positive relationship between industry specialization and financial reporting quality. An experiment was conducted in an audit firm with international affiliation in Egypt to test the research hypotheses. The results indicate that there is no significant difference between industry specialist auditors and non-specialists in constraining earnings management. In addition, findings support that financial reporting quality was significantly higher when specialists conducted the audit. The results provide empirical evidence consistent with the hypothesis that auditor industry specialization improves audit quality.

Karimi and Gerayli (2014) studied the relationship between audit quality (represented by auditor industry specialization and auditor tenure) and earnings management estimated through modified Jones 1991 model of 91 companies listed on Tehran Stock Exchange (TSE) for the period 2008-2012. Evidence from the study indicated that auditor industry specialization is associated with less earnings management of firms listed on TSE.

**Theoretical Framework**

Essentially, agency theory, signaling theory, and auditors’ theory of inspired confidence justify the key function of auditing as a mechanism for mitigating information asymmetries among related parties. For the purpose of this study only signaling theory is discussed. The study is anchored on signaling theory. Signaling through auditor choice stands on the agency theory, and is a manner by which managers and/or directors may impart to the market additional information about their company and their own behaviour. Signaling theory suggests that companies with good performance use financial information disclosure to send signals to the market. Craven and Marston (1999), showed that firms will attempt to accept the same level of disclosure as similar firms operating in the same industry since if a firm does not keep up with the same level of disclosure as others, it may be perceived by stakeholders that it is hiding bad news or negative information. As the types of financial statements produced have become standardized, potential information differentiation that a company can use to send a signal to the market through its
financial statements is reduced. Companies are thus, provided an incentive to signal, other than through transparency in their notes to the accounts and other voluntary disclosures, through their choice of auditor. Moreover, even voluntary disclosures that may be used as signals achieve enhanced credibility in the presence of a quality auditor. A high-quality audit sends a signal to the market that the financial statements are more credible than those audited by lower quality auditors. The market perceives audit firm size and specialist auditors to be of a higher quality than others and rewards (punishes) companies with larger improvements (or falls) in share prices accordingly (Teoh & Wong, 1993; Krishnan & Yang, 1999; Menon & Williams, 1994).

Furthermore, signaling theory does not actually require higher audit quality, it merely needs the market to believe that Top Tier firms are associated with higher audit quality because of the fee premiums they are able to command (Moizer, 1997). It has been shown that the market’s perception of the quality of the company’s auditor influences that company’s share price. As such, directors and management may want to signal to the stakeholders that their interest is being well monitored. Therefore, signaling should, theoretically, affect the demand for audit quality over and beyond the monitoring function alone. The positive Signal of transparency and credibility it sends to the market and the assurance it provides to stakeholders about the quality of earnings performance disclosures suggests a positive association between audit quality and REM.

3. Methodology
This study adopts correlational research design using panel data of a multiple number of firms, over a period of time. The population of the study comprised of all the twenty-one (21) consumer goods companies quoted on the floor of Nigerian Stock Exchange (NSE) as at the end of 2019 accounting period, and are operating throughout the period of the study (2012-2021). However, through filtering 17 companies were considered for the purpose of data collection. The data were collected from the company’s annual reports. The study utilizes secondary sources in this study for the purpose of data collection. The choice of the method is necessitated by the nature of the study and procedure which will enhance the achievement of the set objectives. The data for this study was sourced from the financial reports of the sampled listed consumer goods firms in Nigeria for the period 2010 to 2019.

This study employs multiple regression technique for data analysis, the technique is consistent with studies that combine cross-sectional and time-series data. Regression technique is effective in assessing relationships as well as the impact of one variable(s) on another variable that are theoretically related. However, in view of the panel nature of the data for the study, the study employs different regression models, which include Ordinary Least Squares (OLS) Model, Fixed Effect (FE) Model and Random Effect (RE) Model. The Hausman Specification test was used to select the most suitable model for the study. The study on the other hand conducts regression diagnostics to ensure the validity and fitness of the results. This includes test for Heteroskedasticity.
and Multicollinearity. This is an effort to comply with the classical assumption of OLS and the model of the study in general. Consistent with prior studies such as Roychowdhury (2006), Cohen and Zarowin (2010), Zang (2012) and Ge and Kim (2013), this study employs three metrics to examine real earnings management (these are the abnormal cash flow from operations, abnormal production costs, and abnormal discretionary expenses). In line with these studies, this study estimates the abnormal cash flow from operations, abnormal production costs, and abnormal discretionary expenses as the standardized differences between the actual and calculated estimates from the following models:

\[ \text{CFOit}/\text{Ait-1} = \gamma_0(1/\text{Ait-1}) + \gamma_1\text{Salesit}/\text{Ait-1} + \gamma_2\Delta\text{Salesit}/\text{Ait-1} + \mu_{it} \]  

Where; CFOit = Cash flow from operation of firm i in year t, Ait-1 = Total assets of firm i in year t-1; Salesit = Sales of firm i in year t, \( \Delta \)Salesit = Sales of firm i in year t less sales of firm i in year t-1; \( \mu_{it} \) = A residual term that captures the level of abnormal cash flow of firm i in year t, \( \gamma_0 \) is the intercept and \( \gamma_1 \) and \( \gamma_2 \) are the coefficients.

\[ \text{PRODit}/\text{Ait-1} = \gamma_0(1/\text{Ait-1}) + \gamma_1\text{Salesit}/\text{Ait-1} + \gamma_2\Delta\text{Salesit}/\text{Ait-1} + \gamma_1\text{Salesit-1}/\text{Ait-1} + \mu_{it} \]  

Where PRODit = the sum of cost of goods sold and change in inventory of firm i in year t; \( \Delta \)Salesit = Sales of firm i in year t-1 less sales of firm i in year t-2; \( \mu_{it} \) = A residual term that captures the level of abnormal production costs of firm i in year t.

\[ \text{DISEXPit}/\text{Ait-1} = \gamma_0(1/\text{Ait-1}) + \gamma_1\text{Salesit-1}/\text{Ait} + \mu_{it} \]  

Where DISEXPit = the discretionary expenses, sum of Selling, General & Administrative expenses of firm i in year t; \( \mu_{it} \) = error term of firm i in year t. Therefore, the overall real earnings management is the sum of the standardized differences between the actual and calculated abnormal cash flow from operations, abnormal production costs and the abnormal discretionary expenses. However, to examine the moderating effect of audit committee financial expertise on the relationship between audit quality on real earnings management of listed consumer goods firms in Nigeria, this study estimates the following models; This model derives their impetus from the work of Abbott, Parker, Peters and Raghunandan (2003).

\[ \text{REM}_i = \beta_0 + \beta_1\text{AF}_it + \beta_2\text{AIS}_it + \beta_3\text{AIS}_it*\text{ACFE}_it + \beta_4\text{AT}_it*\text{ACFE}_it + e_{it} \]  

Where REM= Real Earnings Management, ACE= Audit Committee Financial Expertise, AFS= Audit Fees, AT= Auditor Industry Specialization, \( \beta_0 \) = is the intercept, \( \beta_1-\beta_2 \) are the parameters estimate or coefficients in equation and \( \mu = \text{error} \)
Table 1: Measurement of Variables/ Validity

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measurement</th>
<th>Construct validity source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent REM = Real Earnings Management</td>
<td>Measured by summing up the standardized differences between actual and computed abnormal cash flow from operations, abnormal production cost and abnormal discretionary expenses.</td>
<td>Cohen and Zarowin (2010); Kim and Ge (2013); Roychowdhury (2006); Zang (2012).</td>
</tr>
<tr>
<td>Moderator ACFE = Audit Committee Financial Expertise</td>
<td>Proportion of audit committee members with financial literacy to the total audit committee size</td>
<td>Abbott, Parker, Peters and Raghunandan (2003); Kent (2002); Salawu, OkpanachiDikki (2017); Asiriua, UwalomwaUwuigbe and Uwuigbe (2018).</td>
</tr>
<tr>
<td>Independent AF = Audit Fees AIS = Auditor industry Specialization</td>
<td>Natural Log of Audit Fees Paid by the company Dichotomous variable 1 for the companies audited by industry specialist auditors and 0 for non-specialist auditors.</td>
<td>DeAngelo, 1981; Deis and Giroux, 1992; Becker et al, 1998. Heninger (2001); Ebrahim (2001)</td>
</tr>
</tbody>
</table>

Source: Author’s Compilation, 2022.

4. Results
This section deals with analysis and interpretation of data extracted from the annual reports and accounts of the sampled consumer goods companies for the purpose of testing the hypotheses formulated earlier in the introductory chapter and as captured in the model. The section analysed the descriptive statistics from the sample and data collected. Discussion of findings and the various robustness tests were also captured in this section.

Table 2: Descriptive Statistics

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>REM</td>
<td>170</td>
<td>0.5222</td>
<td>0.1591</td>
<td>0.1098</td>
<td>0.7999</td>
</tr>
<tr>
<td>AF</td>
<td>170</td>
<td>4.3040</td>
<td>1.3177</td>
<td>1.8129</td>
<td>6.6232</td>
</tr>
<tr>
<td>AIS</td>
<td>170</td>
<td>0.58235</td>
<td>0.4946</td>
<td>0.0000</td>
<td>1.0000</td>
</tr>
<tr>
<td>ACFC*AF</td>
<td>170</td>
<td>3.4304</td>
<td>1.5808</td>
<td>1.5782</td>
<td>5.5325</td>
</tr>
<tr>
<td>ACFE*AIS</td>
<td>170</td>
<td>0.3422</td>
<td>0.4164</td>
<td>0.0000</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Source: Author’s Computation

A total number of 17 listed consumer goods companies were sampled over a period of 10 years yielding a total of 170 financial firm-year observations. In respect to real earnings management, table 1 shows a mean of 52%. This showed the real earnings management for the companies that stood at an average of 55% and standard deviation of 15% and hence, it can be said that the data had little variations. The study showed that the lowest REM was 10% and the highest within the period was approximately
80%. The table also showed that audit fees had an average of 4.3040 and an SD of 1.3177, signifying that within the period of the logged total fees collected stood at approximately 4.3 million with the value of SD which is 1.3 million showing that data is not scattered around the mean. The figure of the standard deviation showed that there are no much variations in the data. The study showed that auditors industry specialization has a mean of 0.58235 indicating that 58% of the companies used industry specialist auditors within the period of the study. The result also, indicated that at least one company used industry specialist auditors every year within the period of the study. The standard deviation of 49% shows the levels of difference in compliance level from the mean. The study observed that the average amount of fees paid when moderated with audit committee financial expertise stood at 3.4304 with a corresponding SD of 1.5808. This shows a decline in fees paid as moderated by the presence of financial expertise on the audit committee. Finally, the study showed that average value of AIS with audit committee financial expertise as a moderator stood at 0.3422 with a corresponding SD of 0.4164 which showed that the data is clustered around the mean. There is also, an indication of drop in use of industry specialist auditors when financial experts are on the audit committees.

### Table 3: Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>REM</th>
<th>AF</th>
<th>AIS</th>
<th>ACFE*AF</th>
<th>ACFE*AIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>REM</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AF</td>
<td>-0.0247</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIS</td>
<td>-0.2009</td>
<td>0.2747</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACFE*AF</td>
<td>0.0909</td>
<td>0.4403</td>
<td>0.1130</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>ACFE*AIS</td>
<td>-0.2762</td>
<td>0.173</td>
<td>0.0015</td>
<td>0.3735</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

*Source: Author’s Computation*

The correlation matrix table 3 revealed that the correlation coefficient between real earnings management and audit fees stood at -0.0247. The result implied that audit fees have a negative relationship with REM of consumer goods companies in Nigeria. The result also, showed that auditor industry specialization has a negative value of -0.2009. This means that auditor industry specialization relates with REM to the level of -20%. The coefficient between REM and audit fees as moderated by audit committee financial expertise stood at 0.090. This means that audit committee financial expertise positively moderates the relationship between audit fees and real earnings management. The study result, finally, shows that audit committee financial expertise as a moderator has a negative association between AIS and REM to the tune -27%. This means that audit committee financial expertise negatively moderates the relationship between AIS and REM in the area covered by the study.

From Table 4, VIF values for all the independent variables were consistently below the benchmark of 10 which is considered harmful for regression analysis. This is supported by a mean VIF value of 1.22 which is above the benchmark of 1 which is considered suitable for regression analysis. Also, the tolerance value for all the variables was above 0 and close to 1 which is recommended for regression analysis. Meanwhile, the
Breusch-Pagan / Cook-Weisberg test for heteroscedasticity shows a \( \text{Chi}^2(1) \) of 0.23 and a Prob > \( \text{chi}^2 \) of 0.122 which means that there is no problem of heteroscedasticity among the data inferring that the data is homogeneous in nature.

Table 4: Tolerance and Variance Inflation Factors

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
<th>(1/\text{VIF})</th>
</tr>
</thead>
<tbody>
<tr>
<td>AF</td>
<td>1.37</td>
<td>0.727993</td>
</tr>
<tr>
<td>AIS</td>
<td>1.09</td>
<td>0.917540</td>
</tr>
<tr>
<td>ACFE*AF</td>
<td>1.43</td>
<td>0.698017</td>
</tr>
<tr>
<td>ACFE*AIS</td>
<td>1.17</td>
<td>0.858327</td>
</tr>
<tr>
<td>Mean VIF</td>
<td>1.26</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s Computation

Hausman Specification Test

The Hausman Specification test was conducted to ascertain between the fixed and random effect models which was more appropriate for interpretation. The result of the Hausman Test revealed that the value of \( \text{chi}^2 \) is 1.20 and a corresponding prob>\( \text{chi}^2 \) of 0.944. The significant value as reported by the probability of \( \text{chi}^2 \) that the Hausman test favours the random effect model. However, since the hypotheses for study are stated in null form, the study went further to conduct the Lagrange Multiplier test to ascertain whether it is appropriate to interpret using the pool OLS or random effect model. The Breusch and Pagan Lagrangian multiplier test for random effects shows a \( \text{chi}^2 \) of 0.10 and a corresponding probability of 0.0720 which indicates that the pooled OLS is appropriate for the study.

Table 5: Summary of pooled OLS Result Regression Result

| Coef.        | T     | P>|t| |
|--------------|-------|------|
| AF           | -0.0537889 | -2.51 | 0.013 |
| AIS          | -0.076079  | -2.25 | 0.027 |
| ACFE*AF      | 0.0248769  | 2.11  | 0.038 |
| ACFE*AIS     | 0.3993318  | 3.50  | 0.001 |
| R-squared    | 0.1762    |      |      |
| Adj R-squared| 0.1277   |      |      |
| Prob > F     | 0.0050    |      |      |

Source: Author’s Computation

A close look at the result presented in table 4 reveal that the R2 value is 0.1762 which indicates that the audit quality attributes as moderated by audit committee financial expertise can explain only about 17% of the total systematic variation of real earnings management among quoted consumer goods firms in Nigeria. This implies that, about 83% of the total systematic variation in the dependent variable has been left unaccounted for by the model hence captured by the stochastic error term. This implies that other factors not included in the model mostly accounts for realearnings management in the area covered by the study. On the basis of the overall statistical significance of the model, it was observed that the probability of F-statistics is 0.0050 which is significant at 5% level of significance. Table 5 described the result of the
pooled OLS regression conducted for the study. The analysis in table 5 shows a negative but significant relationship between audit fees and real earnings management with a coefficient value of -0.0537889 and probability of F-statistics of 0.013 which is considered significant at 5% level of confidence. This implies that audit fees have a negative influence on real earnings management of listed consumer goods companies in Nigeria. Although still significant according to the result of the study in affecting real earnings management.

However, the result of the intervening role of audit committee effectiveness on the relationship between audit fees and real earnings management show a positive and significant effect as evidenced by the result in table 5 (Coefficient=.0248769 and P-Value= 0.0038). This result implies that the relationship between audit fees and real earnings management is positively and significantly moderated by audit committee financial expertise in the area covered by the study. Based on this result the study rejects the null hypothesis one which states that audit committee financial expertise as a moderator has no significant relationship between audit fees and real earnings management of quoted consumer goods companies in Nigeria. Table 5 indicates that auditors’ industry specialization has a negative but significant effect on real earnings management among listed consumer goods companies in Nigeria. This is evidenced by a coefficient of -0.076079 and p-value of 0.027 which is significant at 5% level of confidence. This implies that irrespective of the fact that auditors’ industry specialization has a negative effect on real earnings management, it is significant in influencing real earnings management. This finding collaborates with that of Bhattachaeya (2011).

Conversely, the relationship between AIS and real earnings management as moderated by audit committee financial expertise indicates a positive and significant effect as evidenced by the coefficient of .3993318 and a p-value of 0.001 which is considered significant at 50% level of confidence. The import of this result is that a unit change in audit committee financial expertise led to proportionate change in the relationship between AIS and real earnings management of quoted consumer goods companies. Based on this result, the study rejects the null hypothesis which state that audit committee financial expertise as a moderator has no significant effect on the relationship between AIS and real earnings management of quoted consumer goods companies in Nigeria.

5. Conclusion and Recommendations
This study examined the moderating effect of audit committee effectiveness on the connection between audit quality as an important aspect of corporate governance and real earnings management among listed consumer goods companies in Nigeria. Real earnings management as dependent variable was proxied by discretionary accruals. Based on the findings, the study concluded that both audit fees and auditors’ industry specialization have significant influence on real earnings management among consumer goods companies in Nigeria. It therefore, means that these variables are determinants of
real earnings management in the area covered by the study. Audit fee is considered a predictor of real earnings management. This is in line with the school of thought which posit that a higher level of audit fees is the major driver of enhanced audit quality, in turn reducing managers’ flexibility to use real earnings management and to manipulate reported earnings. The conclusion drawn from industry specialization also hold true because it is assumed that, industry specialist auditors have gained great training and experience concentrated in a specific industry and are considered to have more accurate non-error frequency knowledge than non-industry specialists.

This study therefore recommends that consumer goods companies should encourage having at least one member on the audit committee with financial expertise while charging audit fees commensurate with the task expected by the incumbent auditor and in comparison, with similar organisations within the same industry. Consumer goods companies should hire auditors with industry specialization since they have a better understanding of the specific industry peculiarities and operations distinct from other sectors. This can be complemented by the presence of financial expertise on the audit committee.

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