

The Moderating Effect of Gender on Audit Committee Attributes and Earnings Management

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Abstract

There exist a number of studies that have been conducted on the influence of audit committee attributes on earnings management but no attention has been given to the moderating effect of gender on audit committee attributes and earnings management. The main objective of this study was to examine the moderating effect of gender on the impact of audit committee attributes on earnings management of listed Agricultural companies in Nigeria for a period of six years (2012-2017). The study used ex-post facto and correlational research designs. The population of the study was the five (5) Agricultural companies in Nigeria listed on the Nigerian Stock Exchange as of 31st December 2017 and all the companies were used as a sample of the study. The study used a panel of multiple regression techniques for data analysis. It was found that gender has a strong and significant influence on the impact of audit committee attributes on earnings management of listed Agricultural companies in Nigeria. It was recommended that the audit committee of companies in Nigeria should comprise of at least 40% of women. Regulatory bodies concerned in Nigeria like Securities and Exchange Commission, Nigerian Stock Exchange and Financial Reporting Council should clearly state the composition of audit committee members and increase the number to ten where women should form 40% of the members of the committee and a woman with financial knowledge should be made the chairperson of the committee since women have shown a significant level of commitment to their responsibilities and contribute in reducing earnings manipulation.

Keywords: Gender, Audit Committee Attributes, Earnings Management, and Agricultural Companies

1. Introduction

It has been a tradition and mandatory that a corporate body should constitute a board of directors among which the audit committee is formed. The committee is a sub-committee of a company's board and it is one of the most vital committees in the organization because of its role and responsibilities in protecting the interests of shareholders in relation to accounting and financial irregularities and mistakes. The committee improves the reliability of annual reports and accounts and declines the risk of audit which improves the quality of reported accounting figures (Gabriela, 2016). Many studies conducted recently commended that audit committee attributes are very vital to a company's performance (Richard & Rono, 2016). Studies on corporate governance put much emphasis on the members of the audit committee to comprise of members that are independent, financial expertise and for the audit committee to impact positively on company's financial performance (Carcello, Hermanson, Neal & Riley, 2002; Abbott, Parker & Peters, 2004; Richard & Rono, 2016).

Across international boundaries and in Nigeria particularly, the cases of accounting scandals have immensely diminished investors' confidence in the quality of annual reports and accounts (financial statements) and financial activities at large firms. Despite the fact that audit committees are present in the companies' board as it is made mandatory by the code of corporate governance, accounting scandals in firms have continued to affect the performance of companies which led to serious

concerns over the efficiency and effectiveness of audit committees (Musa, Oluruntoba & Oba, 2014). Hence, this issue led to these questions which need to be answered; is it that most of the audit committees do not have members with financial knowledge (financial expertise)? is it that they don't meet up to 4 times annually to check the quality of annual reports and accounts (financial statement) and audit report of the firms? is it that most of the companies' audit committee size is not in line with the corporate governance code? Is it that women are not given a slot in the audit committee of the firms? is it that the audit committee is not independent of managers in which their decisions are influenced? However, these questions necessitate research of this nature in order to answer the questions raised.

The accounting manipulation of numbers in some large companies which resulted in financial failures or corporate failures has raised serious questions about the role of various monitoring mechanisms believed to protect investor's interests and control managerial opportunistic behavior through earnings manipulation. However, the audit committee has become very vital as part of corporate governance because it oversees the quality of annual reports and accounts of corporate bodies and acts as a control to management hijack of controls and irregularities (Carcello & Neal, 2000; Whitting & Pany, 2003; Anderson, Mansi & Reeb, 2004; Zhang, Zhou & Zhou, 2007; Yousef, Nur & Khairil, 2015). However, corporate governance code makes it mandatory for the audit committee of listed corporate bodies to have 6 members with at least one with financial knowledge and experience (financial expert) and to be independent of management and meet at least four times in a year.

The financial reporting system of corporate bodies and the quality of reported earnings of the firms could be enhanced if their audit committees are independent from their management. This is due to the fact that they are not associated with a potential conflict of interest that minimizes their monitoring power (Siagian & Tresnaningish, 2011; Abdullahi & Yunusa, 2016).

The appointment of members with financial knowledge and experience (financial experts) into the audit committee has been claimed and believed to have a positive market reaction (Defond, Hann & Hu, 2005; Richard & Romo, 2016). The audit committee gender represents the proportion of female directors in the company's audit committee membership. The audit committee that has at least one female director in their membership functions in a different way when compared with the one that has none. This is due to the fact that the female directors attend meetings frequently than male directors and are more serious in discharging their duty (Huang & Thiruvardi, 2010; Abdullahi & Yunusa, 2016). It is expected that an efficient and effective audit committee might minimize irregularities, earnings manipulation, and accounting scandals in firms in the process of monitoring and coordinating the activities of management of the firms especially when it comes to management opportunistic behavior.

Despite the fact that a lot of studies (Carcello & Neal, 2000; Whitting & Pany, 2003; Anderson, Mansi & Reeb, 2004; Defond, Hann & Hu, 2005; Zhang, Zhou & Zhou, 2007; Huang & Thiruvardi, 2010; Yousef, Nur & Khairil, 2015; Abdullahi & Yunusa, 2016; Richard & Romo, 2016) have been conducted on audit committee attributes and earnings management of firms and their findings were mixed and controversial but no attention has been given to listed Agricultural firms in Nigeria. Also, divergent views exist about the impact of several audit committee attribute proxies on the earnings management of firms. Although several studies were carried out on the subject matter, only a few were conducted in Nigeria and in spite of this, the moderating effect of gender on the impact of audit committee attributes on earnings management has received no attention from academic researchers and this serves as one of the stimulants of this study. A lot of studies tend to ignore audit committee gender as a proxy of audit committee attribute but in this study, the variable is included. In addition, most of the studies period ended before or in 2015 and this study fills this gap by extending its period to 2017.

This study examines the moderating effect of gender on the impact of audit committee attributes on discretionary accruals of listed agricultural companies in Nigeria. Other objectives that are specified in the study include, to:

- i. predict the moderating effect of women on the influence of audit committee financial expertise on discretionary accruals of listed agricultural companies in Nigeria.
- ii. assess the moderating effect of women on the impact of audit committee meeting on discretionary accruals of listed agricultural companies in Nigeria.
- iii. evaluate the moderating effect of women on the impact of audit committee size on discretionary accruals of listed agricultural companies in Nigeria.

For the purpose of this study, the following hypotheses were formulated in null form:

Ho₁: Women have no moderating effect on the influence of audit committee financial expertise on discretionary accruals of listed Agricultural companies in Nigeria.

Ho₂: Women have no moderating effect on the impact of audit committee meeting on discretionary accruals of listed Agricultural companies in Nigeria.

Ho₃: Women have no moderating effect on the influence of audit committee size on discretionary accruals of listed Agricultural companies in Nigeria.

This study concentrates on the moderating effect of gender on the impact of audit committee attributes on earnings management of listed Agricultural companies in Nigeria. The study covers a period of six (6) years from 2012-2017. Discretionary Accruals (DACC) was used as a proxy of the dependent variable of the study which is earnings management while audit committee financial expertise, audit committee meeting and audit committee size were used as the proxies of the independent variable which is audit committee attributes while the moderating variable is gender which is proxied by women. Firm size is used as a control variable in order to eliminate the bias of differences in the size of the companies.

This study will be of great benefit to listed Agricultural companies in Nigeria as it would give them a clue on efficient audit committee members and how the involvement of women would improve the prevention and detection of negative earnings management. It will also be beneficial to researchers when building upon the existing body of knowledge. The study will benefit regulatory bodies in coming up with policies on audit committee attributes and the prevention of earnings manipulation. Agency theory will also be validated using audit committee attributes and earnings management of Agricultural firms in Nigeria.

2. Literature Review and Theoretical Framework

Sudarman and Hidayat (2019) examined the impact of audit committee gender on the earnings management of manufacturing companies listed on the Indonesian Stock Exchange from 2013-2017. The study found among other things that audit committee gender has a negative significant impact on earnings management of manufacturing firms listed on the Indonesian Stock Exchange. The study clarifies that women in the audit committee are extra cautious and let for discretion in terms of financial reporting. The study concluded that females in the audit committee alleviate earnings management. However, the study was conducted outside Nigeria, had it been the study was conducted in Nigeria the outcome might differ.

Rajeevan and Ajward (2019) examined the impact of audit committee size, meeting, and financial expertise on earnings management of seventy listed firms in the Colombo Stock Exchange in Sri Lanka from 2015-2017. The study found that audit committee size, meeting, and financial expertise have no significant impact on earnings management of the sample firms. Therefore, the study concluded that audit committee size, meeting, and financial expertise do not play an important role in preventing earnings manipulation. However, the period of the study was too small, had it been it was increased the outcome might differ.

Sunny, Dadang, and Subuh (2018) examine the impact of gender diversity, earnings management practices, and corporate performance of quoted firms in Nigerian from 2010 to 2014. They used the regression technique to analyzed data and it was found that female chief executive officers of the firms have a negative but insignificant impact on the earnings of firms in Nigeria, while the female chief financial officer has a positive significant relationship on earnings. The finding also shows that

female membership and audit committees have a negative but not significant relationship with corporate performance. However, the performance of firms in Nigeria becomes better as the number of women in them goes higher, that is, increases. The study recommends that the management of various companies should formulate and implement policies that will include gender diversity on the board in order to stimulate earnings management and other performance measures in the right direction. This might influence the market value per share of their entities positively.

Issa (2017) evaluates the effectiveness of the Bahraini corporate governance code 2011 on minimizing earnings manipulation practices by using audit committee attributes in the pre- and post- Bahraini Corporate Governance Code 2011. The study examines audit committee meetings and audit committee financial experts. Ordinary least-squares multiple regression is used to examine the impact between audit committee attributes and earnings management practices pre- and post- BCGC 2011. The regression model is implemented separately for the year 2010 and for the year 2012. The outcome of the regression model reveals that earnings management does not significantly associate with any of the audit committee attributes in pre- or post- the Bahraini Corporate Governance Code 2011. The study concluded that the audit committee doesn't provide increasing monitoring in dealing or reducing earnings management in the post- Bahraini Corporate Governance Code period.

Sylvester and James (2016) examine the effect of audit committee meeting on earnings management of Nigerian listed companies from 2008 to 2014. Using the multivariate regression technique, the study found that, audit committee meeting has a negative significant effect on the earnings management of Nigeria listed companies and this implies that the explanatory variable helps in reducing to the barest minimum the tendency of management to carry out opportunistic behavior of earnings manipulation. The study recommends that SEC and CBN should set a regulation which ensures statutory position on the maximum number of meetings to be held by audit committee members in a year.

Rono (2016) assesses the effect of audit committee expertise on firm performance among listed firms in Nairobi securities exchange for a period of six years from 2006 to 2011 in Kenya. Multiple Linear regression was used to test the hypotheses of the study. It was found that audit committee expertise has a significant influence on the entity's performance. The presence of audit members with experience declines financial irregularities and misreporting and improve monitoring quality. It is, therefore, recommended that having experienced audit committee members should be a key priority for firms because the results of the study have shown that the presence of audit members with experience reduces the chances of financial irregularities and misreporting which in turn enhance entity performance and also the chances of fraud are also minimized as well as the cost of debt.

Bala and Gugong (2015) examine the effect of audit committee characteristics on earnings quality in listed food and beverage companies in Nigeria from 2007 to 2014. They used secondary data and it was analyzed with regression technique. The study found that audit committee financial expertise and audit committee size have a negative significant impact on earnings management while the audit committee meeting has a positive significant impact on earnings management. The study concluded that larger audit committee members are efficient in monitoring management opportunistic behavior toward earnings manipulation in the firms.

Ibrahim, Bello, and Suleiman (2015) examine the impact of audit committee attributes in deterring real activities manipulation of listed manufacturing firms in Nigeria from 2008 to 2013. They used secondary data and it was analyzed with multiple regressions techniques. The study found that audit committee attributes especially financial experience and knowledge is effective in stopping or minimizing real earnings manipulation, but other audit committee attributes such as independence, meeting, and size were found to be less effective in reducing real activities manipulation practice of listed manufacturing firms in Nigeria. The study recommends that listed manufacturing entities in Nigeria should increase the percentage of members with financial experience and knowledge in the audit committee of the firms because they are more efficient in reducing operational manipulative behaviour. Financial Reporting Council of Nigeria, Securities and Exchange Commission, and Nigerian Stock Exchange should embark on their check and monitoring activities and ensure that listed manufacturing companies are producing transparent and reliable annual reports and accounts

that are free from misinformation and creative accounting in Nigeria for the use of several users of accounting and financial information.

Kankanamage (2015) examines the impact of the audit committee on earnings management in Sri Lanka from 2012-2015. The study uses the ordinary least square regression (OLS) to assess the effect of the audit committee on earnings management of a sample of 160 listed companies in Sri Lanka. The study found that there is a significant impact between the audit committee and earnings management of the companies. The study concludes that an effective audit committee of a company contributes in enhancing the quality of financial reporting and transparency.

Amer, Ragab and Shehata (2014) investigated the impact of the audit committee on firms' financial performance for the period of 2004 to 2012. The study focused on a sample size of fifty firms listed on the Egyptian Stock Market and used random effect regression. The study found a significant positive impact between audit committee meetings and financial performance. AL-Matari, AL-Swidi, and Fadzil (2014) evaluate the influence of audit committee attributes on the financial performance of listed firms in Muscat Security Market for the period of 2 (two) years from 2011-2012. They found a negative significant relationship between audit committee meetings and the financial performance of companies. Hamdan, Sarea, and Reyad (2013) assess the impact of audit committee characteristics on the financial performance of listed firms in Jordan Stock Exchange Market for the period 2008 to 2009. The study indicates a negative insignificant impact between audit committee independence and financial performance. The period covered by the study is considered insufficient to establish a relationship between the variables of the study.

From the literature reviewed above, it is evident enough to show that, there are gaps that need to be filled as none of the studies examines the moderating effect of gender on audit committee attributes and earnings management, they concentrated on the direct impact between audit committee attributes and earnings management and performance. Also, none of the studies extended its period to 2017 in order to take care of events that occurred during the period as the findings might differ.

The theoretical explanation of this study was based on agency theory. Agency theory assumes that both principal and the agent of a corporate body are motivated by personal interest. This assumption of personal interest dooms agency theory to inevitable inherent conflicts. If the agent and principal are motivated by personal interest, agents are likely to carry out personal interested objectives that are against and even conflict with the aims of the principal. Agents are supposed to act in the absolute interest of their principals. The theory of agency tells how to best organize relationships in which the principal determines the responsibility while the agent does the work. Agency theory has been broadly used in examining the relationship between Shareholders of a firm and managers who run the affairs of those corporate bodies (Fama & Jensen, 1983). Because of information asymmetries and personal interests of managers, shareholders lost trust in their agents. The shareholders seek to resolve these by putting in place some monitoring mechanisms to align the interests of managers with shareholders and to reduce the extent of information asymmetries and opportunistic behavior of managers (Donaldson & Davis, 1991). However, the diversification of shareholdings in a company helps to a greater extent in monitoring the activities of the agents in a firm as each class of shareholders has their own personal interest which stimulates them to monitor the decisions of the managers efficiently and this improves the financial performance of a corporate body. An audit committee is one of the monitoring mechanisms of corporate governance that provides an independent check on the activities of managers and the information provided by them. The presence of financial expertise, women, and the number of times the committee met helps in reducing management opportunistic behavior toward earnings manipulation. Therefore, this study adopted the agency theory to anchor its variables.

3. Methodology, Variable Measurement and Model Specification

This study adopted a quantitative approach with a positivism paradigm. The study used ex-post facto and correlational research designs. The choice of the designs is a result of their ability to describe the statistical influence and relationship between two (2) or more variables. The study used all the five (5) agricultural companies in Nigeria listed on the Nigerian Stock Exchange as at 31st December 2017 as

its population. All the 5 firms were used as a sample of the study by adopting census sampling technique. Only secondary source of data was used for the study and the data was extracted from published annual reports and accounts of the Agricultural firms for a period of 6 years (2012-2017). The study used panel multiple linear regression as a technique of data analysis.

Table 1: List of listed agricultural companies in Nigeria

S/No	Name of Company
1	Ellah Lakes Plc
2	FTN Cocoa Processors Plc
3	Livestock Feeds Plc
4	Okomu Oil Palm Plc
5	Presco Plc

Source: NSE, 2018

Table 2 shows how the variables of this study were measured.

Table 2: Variable Measurement

Variable	Variables Name	Variable Measurement and Source
DACC	Discretionary Accruals	Measured as absolute values of residuals using modified Jones model by Dechow, Sloan and Sweeny (1995)
ACFE	Audit Committee Financial Expertise	Measured as proportion of audit committee members with financial knowledge in the audit committee to total number of the audit committee (Bala & Gugong, 2015)
ACM	Audit Committee Meeting	Measured as the number of meetings held by the Audit Committee during the year (Ojulari, 2012; Bala & Gugong, 2015; Abdullahi & Yunusa, 2016)
ACS	Audit Committee Size	Measured as the total number of members in the audit committee (Bala & Gugong, 2015)
ACG	Audit Committee Gender	Measured as the ratio of females in the firms' audit committee membership (Abdullahi & Yunusa, 2016)
FS	Firm Size	Measured as natural logarithm of firms' total assets (Mohammed, Kaid & Hanim, 2014)

Source: Compiled by Author, 2018

For the purpose of obtaining the discretionary accruals residuals, modified Jones model of Dechow, Sloan, and Sweeny, (1995) was used.

$$DACC_{it} = TAC_{it}/TA_{it} + 1/TA_{it} + (\Delta REV_{it} - \Delta REC_{it})/TA_{it} + PPE_{it}/TA_{it} + \mu_{it}$$

$$TAC = NI - OCF$$

Where:

DACC= Discretionary Accruals

TAC= Total Accruals

TA= Total Assets

ΔREV = Change in Revenue

ΔREC = Change in Receivable

PPE= Property Plant and Equipment

NI= Net Income

OCF= Operating Cash Flow

μ = Error Term

i= Firm

t= Time

Panel multiple linear regression models were specified in order to examine the impact audit committee attributes on discretionary accruals of listed Agricultural companies in Nigeria. The models are specified below:

$$DACC_{it} = \beta_0 + \beta_1ACFE_{it} + \beta_2ACM_{it} + \beta_3ACS_{it} + \beta_4ACG_{it} + \beta_5FS_{it} + \mu_{it} \text{-----Model 1}$$

$$DACC_{it} = \beta_0 + \beta_1ACFE_{it} \times ACG_{it} + \beta_2ACM_{it} \times ACG_{it} + \beta_3ACS_{it} \times ACG_{it} + \beta_4FS_{it} + \mu_{it} \text{----Model 2}$$

Where:

β_0 = Constant

$\beta_1 - \beta_4$ = Coefficient of the parameters

ACFE= Audit Committee Financial Expertise

ACM= Audit Committee Meeting

ACS= Audit Committee Size

ACG= Audit Committee Gender

DACC= Discretionary Accruals

FS= Firm Size

μ = error term

i= firm

t= time

4. Results and Discussion

Table 3: Descriptive Statistics

Variables	Min.	Max.	Mean	Std. Dev.	Variance	Skewness	Kurtosis
DACC	0.004	0.072	0.029	0.023	0.001	0.237	1.623
ACFE	0	0.666	0.303	0.207	0.043	0.374	1.965
ACM	2	5	4.433	0.817	0.668	-1.325	3.988
ACS	4	9	8.533	0.973	0.947	-3.519	16.862
ACG	0	0.444	0.292	0.102	0.010	-0.397	3.909
FS	15.201	18.795	17.180	1.068	1.141	-0.513	2.250
MACFE	-0.06	0.043	-0.004	0.027	0.001	-0.186	2.211
MACM	-0.907	0.758	0.011	0.399	0.159	0.183	2.767
MACS	-2.632	1.364	0.008	0.910	0.827	-0.421	4.009

Source: Output from Stata 11.2

Table 3 shows a mean value of 0.029 for DACC of listed agricultural companies in Nigeria, the minimum value of DACC stood at 0.004 while its maximum is 0.072, this implies that those companies that have higher discretionary accruals commit the higher level of earnings manipulation and those with lower discretionary accruals commit lower earnings management. The audit committees in some agricultural companies have no member(s) with financial experience and knowledge (financial experts) and that is against the provision of Companies and Allied Matters Act (1990) which requires companies' audit committees to have at least one member with financial knowledge and experience while the maximum number members with financial knowledge in some agricultural companies is 6. The audit committee members of some listed agricultural companies in Nigeria attended a minimum of two meetings during a year and in some a maximum of 5. The minimum number of members in some audit committee of the listed agricultural companies in Nigeria is 4 while the maximum is 9. From table 3, some audit committees have no female as a member of the committee while some have a maximum of 0.444 (4). The Skewness values were all close to 0 and 1. In addition, the kurtosis values were all close to 0 and 3 except audit committee size which shows higher than normal. The data is considered to be normally distributed except for audit committee size and that cannot affect the statistical inferences derivable from the study.

Table 4: Correlation Matrix Statistics

Variables	DACC	ACFE	ACM	ACS	ACG	FS	MACFE	MACM	MACS
DACC	1								
ACFE	-0.598*	1							
	(0.001)								
ACM	-0.468*	0.393*	1						
	(0.009)	(0.032)							
ACS	-0.087	0.297	-0.084	1					
	(0.646)	(0.111)	(0.659)						
ACG	0.375*	0.217	0.144	0.082	1				
	(0.041)	(0.250)	(0.449)	(0.668)					
FS	-0.012	-0.141	0.010	-0.063	-0.116	1			
	(0.949)	(0.457)	(0.958)	(0.740)	(0.542)				
MACFE	0.588*	-0.419*	0.004	0.078	0.854*	0.246	1		
	(0.001)	(0.021)	(0.982)	(0.681)	(0.000)	(0.190)			
MACM	0.519*	-0.287	0.004	0.109	0.949*	0.143	0.931*	1	
	(0.003)	(0.124)	(0.985)	(0.565)	(0.000)	(0.451)	(0.000)		
MACS	0.371*	-0.209	0.146	0.072	0.999*	0.111	0.847*	0.947*	1
	(0.043)	(0.268)	(0.442)	(0.704)	(0.000)	(0.561)	(0.000)	(0.000)	

Source: Output from Stata 11.2

*. Correlation is significant at 1% or 5% level

From table 4, DACC has a strong negative significant association with audit committee financial expertise, audit committee meeting, and positive association with audit committee gender, MACFE, MACM, and MACS. This can be confirmed from the coefficient values of -0.598, -0.468, 0.375, 0.588, 0.519 and 0.371 respectively and significance values of 0.001, 0.009, 0.041, 0.001, 0.003 and 0.043 respectively. Audit committee financial expertise is positively associated with an audit committee meeting and a negative association with MACFE. Audit committee gender has a positive association with MACFE, MACM, and MACS at 1% level of significance. MACFE has a positive relationship with MACM and MACS at 1% level of significance. MACM has a positive relationship with MACS at 1% level of significance.

Table 5: Regression Results

Variables	Coefficient	T-Values	P-Values	Tolerance	VIF	Model Summary
Constant	0.114	1.79	0.087			
ACFE	-0.042	-2.15	0.042	0.633	1.58	
ACM	-0.010	-2.32	0.029	0.727	1.38	
ACS	-0.001	-0.29	0.774	0.818	1.22	
ACG	0.083	2.41	0.024	0.840	1.19	
FS	-0.002	-0.76	0.457	0.969	1.03	
Mean VIF					1.28	
Hetttest	0.64		0.424			
R ²						0.542
Adjusted R ²						0.446
F-Statistics						5.67
Prob (Sig)			0.001			

Source: Output from Stata 11.2

A multicollinearity test was conducted. The standard is that the variance inflation factor (VIF) should be less than 10.00 and greater than 1.00 while the tolerance values should be less than 1.00. These two (VIF and tolerance values) are good measures for testing multicollinearity between the regressors. From table 5, the test result indicates that tolerance values were consistently less than 1.00 while VIF values were also consistently greater than 1 and less than 10 which implies that there is an absence of multicollinearity in the predictor variables. Ordinary Least Square (OLS) regression was run. The researcher conducted a test for heteroskedasticity after running the OLS regression where the result

shows a Chi^2 value of 0.64 which is insignificant at 0.424 (42%) and the result signifies the absence of heteroskedasticity and this led the researcher to interpret the OLS result.

Cumulatively, table 5 shows an F-statistics value of 5.67 which is significant at 1% (0.001) which confirms that the model of the study is well fitted, thus, the variables of the study are properly combined and well utilized. The R^2 value is 0.542 (54%) and the adjusted R^2 value is 0.446 (45% approximately) which signifies that, the explanatory variable (proxied by audit committee financial expertise, audit committee meeting, audit committee size, and audit committee gender) of the study has explained the total variation in discretionary accruals of listed agricultural firms in Nigeria of up to the tune of 45% and the remaining 55% is covered by other factors not captured in this study which proved the fitness of the model.

From table 5, audit committee financial expertise has a beta coefficient of -0.042 with a t-value of -2.15 which is significant at 5%. This signifies that audit committee financial expertise has a negative significant impact on earnings management of listed Agricultural firms in Nigeria. This implies that the presence of members with financial and accounting knowledge in the audit committee of the listed Agricultural firms in Nigeria helps in detecting and minimizing fraud and earnings manipulation in the companies because they are knowledgeable in accounting and finance and they might have the requisite knowledge and techniques to easily detect and prevent fraud in the companies. The finding is in line with the researcher's prior expectation that audit committee members with financial knowledge help in reducing the manipulation of earnings in an organization. It is also, in line with agency theory because the presence of financial expertise in the audit committee serves as a monitoring mechanism that assists in preventing fraud. The finding is in line with the finding of Bala and Gugong (2015) that found audit committee financial expertise has a negative significant impact on earnings management.

From the first model, the audit committee meeting has a coefficient value of -0.010 with a t-value of -2.32 which is significant at 5%. This shows that the audit committee meeting has a negative significant impact on the earnings management of listed Agricultural firm in Nigeria. It implies that anytime the audit committee members met, they discuss issues that help in reducing accounting manipulation in the listed Agricultural companies of Nigeria. It also indicated that meeting at least twice by the members of the committee may guarantee the minimization of management opportunistic behavior toward committing fraud. This finding is in line with Sylvester and James (2016) and contrary to the finding of Bala and Gugong (2015) that found audit committee meetings to have a positive significant impact on earnings management of listed food and beverage companies in Nigeria.

From the regression table 5, the audit committee size has a beta coefficient of -0.001 with a t-value of -0.29 which is insignificant at 77%. This signifies that the audit committee size has no impact on the discretionary accruals of listed Agricultural firms in Nigeria. This implies that the number of members in the committee has no effect on the responsibility because the ability to detect earnings manipulation depends on individual intellectual capacity and wisdom. Therefore, whether it is a single person or more in the committee, it does not guarantee the detection of fraud, it depends on capacity. This finding is contrary to the finding of Bala and Gugong (2015) who found an audit committee size to have a negative significant impact on earnings management of listed food and beverage companies in Nigeria.

The regression table 5 shows that the audit committee gender has a beta coefficient of 0.083 with a t-value of 2.41 which is significant at 5%. This signifies that the audit committee gender has a positive significant impact on earnings management of listed agricultural companies in Nigeria. The finding is contrary to the finding of Abdullahi and Yunusa (2016) who found that the presence of women in the audit committee reduces earnings manipulation.

Table 6- Regression Results: 2nd Model

Variables	Coefficient	T-Values	P-Values	Model Summary
Constant	0.354	11.95	0.000	
MACFE	-0.284	-4.25	0.000	
MACM	0.149	4.35	0.000	
MACS	-0.001	-3.43	0.003	
FS	-0.001	-4.99	0.000	
Hetest	0.00		0.979	
R ²				0.979
Adjusted R ²				0.971
F-Statistics				120.94
Prob(Sig)			0.000	

Source: Output from Stata 11.2

From the regression table 6, the moderating effect of gender on audit committee financial expertise and earnings management has a beta coefficient of -0.284 with a t-value of -4.25 which is significant at 1%. This signifies that gender has a significant moderating effect on the impact of audit committee financial expertise on earnings management of listed Agricultural companies in Nigeria. This implies that the presence of the women in the financial expertise of the audit committee helps in detecting fraud and manipulation of accounting numbers. This is in line with the researcher's prior expectation that the presence of women in the financial expertise of the audit committee helps to a greater extent in reducing the earnings manipulation by managers in listed Agricultural companies of Nigeria. The finding is also, in line with agency theory, because the audit committee is one of the monitoring mechanisms put in place to detect earnings manipulation in an organization and the presence of women in the financial expertise assists in preventing and detecting these manipulations because of their dedication and commitment to work. The finding provides evidence of rejecting the first hypothesis of the study which states that, women have no moderating effect on the influence of audit committee financial expertise on discretionary accruals of listed Agricultural companies in Nigeria.

Table 6 shows that the moderating effect of gender on audit committee meetings and earnings management has a beta coefficient of 0.149 with a t-value of 4.35 which is significant at 1%. This signifies that gender has a significant moderating effect on the impact of audit committee meeting on earnings management of listed Agricultural companies in Nigeria. The finding is contrary with the researcher's prior expectation that the presence of women in audit committee meetings assists in detecting earnings management. However, the outcome may be as a result of the presence of women with no financial knowledge in the audit committee of the listed agricultural companies in Nigeria. It is also, contrary to the agency theory. The finding provides evidence of rejecting the second hypothesis of the study which states that, women have no moderating effect on the impact of audit committee meetings on discretionary accruals of listed Agricultural companies in Nigeria.

Regression table 6 indicates that the moderating effect of gender on audit committee size and earnings management has a beta coefficient of -0.001 with a t-value of -3.43 which is significant at 1%. This signifies that gender has a significant moderating effect on the impact of audit committee size on earnings management of listed Agricultural companies in Nigeria. This implies that the presence of women in the audit committee of the listed Agricultural firms in Nigeria reduces manipulation of accounting numbers in the companies. This is in line with the researcher's prior expectation and also agency theory. This produces a prove of rejecting the third hypothesis of the study which states that, women have no moderating effect on the influence of audit committee size on discretionary accruals of listed Agricultural companies in Nigeria.

Ordinary Least Square (OLS) regression was run. The researcher conducted a test for heteroskedasticity after running the OLS regression where the result shows a Chi² value of 0.00 which is insignificant at 0.979 (98%) and the result signifies the absence of heteroskedasticity and this led the researcher to interpret the OLS result. Cumulatively, table 5 shows F-statistics value of 120.94 which is significant at 1% (0.000) which confirms that the model of the study is well fitted, thus, the variables

of the study are properly selected, combined and well utilized. The R^2 value is 0.979 (98%) and the adjusted R^2 value is 0.971 (97%) which signifies that, the independent variable (proxied by audit committee financial expertise, audit committee meeting, audit committee size), moderating variable (gender) of the study has explained the total variation in discretionary accruals of listed agricultural firms in Nigeria of up to the tune of 97% and the remaining 3% is covered by other factors not captured in the model of this study. It can be seen that, when gender was used as a moderator, the outcome of the regression model improved significantly.

5. Conclusion and Recommendations

This study examines the moderating effect of gender on the impact of audit committee attributes and earnings management of listed Agricultural companies in Nigeria. This study revealed that gender (women) has a moderating effect on the impact of audit committee attributes (audit committee financial expertise, meeting, and size) on earnings management of listed Agricultural companies in Nigeria. Therefore, the study concludes that the presence of women in the audit committee of the listed Agricultural firms in Nigeria to a greater extent minimizes the tendency of managers to perform negative earnings manipulation because of the women commitment to their work and fear of corruption.

Based on the findings and conclusion of this study, the following recommendations were made:

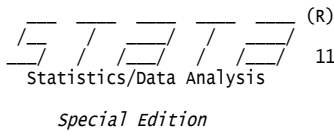
- i. Companies and Allied Matters Act (CAMA) and other regulatory bodies such as Securities and Exchange Commission (SEC) should provide law or make it a rule that the audit committees' financial expertise of companies in Nigeria should comprise of at least 50% women with financial knowledge since women play a significant role in detecting and preventing fraud and earnings management in listed agricultural companies in Nigeria.
- ii. Female members in the audit committee should be given special treatment and they should be highly motivated by giving them a significant amount of allowance and other packages that would encourage them to attend audit committee meetings frequently/regularly since they are found to be more committed to discharging their responsibilities and thereby assist in minimizing manipulation of accounting numbers. The women should be given training on accounting and finance tools or techniques to use in detecting frauds since their presence in the meeting may assist in discussing issues that might lead to the detection and prevention of earnings manipulation because women are more frequent in attending meetings and efficient in discharging their responsibilities.
- iii. The audit committee of companies in Nigeria should comprise of at least 40% of women. Regulatory bodies concerned in Nigeria like Securities and Exchange Commission, Nigerian Stock Exchange and Financial Reporting Council should clearly state the composition of audit committee members and increase the number to ten where women should form 40% of the members of the committee and a woman with financial knowledge should be made the chairperson of the committee since women have shown a significant level of commitment to their responsibilities and contribute in reducing earnings manipulation.

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Appendice



11.2 Copyright 1985-2009 StataCorp LP
 StataCorp
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 STATA

Notes:

1. (/m# option or -set memory-) 50.00 MB allocated to data
2. (/v# option or -set maxvar-) 5000 maximum variables

. edit

. *(11 variables, 30 observations pasted into data editor)

. summarize dacc acfe acm acs acg fs macfe macm macs

Variable	Obs	Mean	Std. Dev.	Min	Max
dacc	30	.0299333	.0230919	.004	-.072
acfe	30	.3033333	.2074099	0	.666
acm	30	4.433333	.8172002	2	5
acs	30	8.533333	.9732042	4	9
acg	30	.2924	.1016843	0	.444
fs	30	17.18023	1.068049	15.201	18.795
macfe	30	-.0043667	.0271121	-.06	-.043
macm	30	.0114333	.3990836	-.907	.758
macs	30	.0076	.9096637	-2.632	1.364

. summarize dacc acfe acm acs acg fs macfe macm macs, detail

DACC					
Percentiles	Smallest				
1%	.004	.004			
5%	.004	.004			
10%	.005	.005	Obs	30	
25%	.007	.005	Sum of wgt.	30	
50%	.035		Mean	.0299333	
			Std. Dev.	.0230919	
75%	.046	Largest			
		.057			
90%	.061	.065	Variance	.0005332	
95%	.069	.069	Skewness	.2368143	
99%	.072	.072	Kurtosis	1.62279	
ACFE					
Percentiles	Smallest				
1%	0	0			
5%	0	0			
10%	.0555	0	Obs	30	
25%	.125	.111	Sum of wgt.	30	
50%	.2685		Mean	.3033333	
			Std. Dev.	.2074099	
75%	.554	Largest			
		.571			
90%	.598	.625	Variance	.0430189	
95%	.666	.666	Skewness	.3737398	
99%	.666	.666	Kurtosis	1.96476	
ACM					
Percentiles	Smallest				
1%	2	2			
5%	3	3			
10%	3	3	Obs	30	
25%	4	3	Sum of wgt.	30	
50%	5		Mean	4.433333	
			Std. Dev.	.8172002	
75%	5	Largest			
		5			
90%	5	5	Variance	.6678161	
95%	5	5	Skewness	-1.325013	
99%	5	5	Kurtosis	3.98807	
ACS					
Percentiles	Smallest				
1%	4	4			
5%	8	8			
10%	8	8	Obs	30	
25%	8	8	Sum of wgt.	30	
50%	9		Mean	8.533333	
			Std. Dev.	.9732042	
75%	9	Largest			
		9			
90%	9	9	Variance	.9471264	
95%	9	9	Skewness	-3.519516	
99%	9	9	Kurtosis	16.86167	
ACG					
Percentiles	Smallest				
1%	0	0			
5%	.111	.111			
10%	.222	.222	Obs	30	
25%	.251	.222	Sum of wgt.	30	
50%	.286		Mean	.2924	
			Std. Dev.	.1016843	
75%	.333	Largest			
		.444			
90%	.444	.444	Variance	.0103397	
95%	.444	.444	Skewness	-.396996	
99%	.444	.444	Kurtosis	3.909176	

FS

Percentiles		Smallest		
1%	15.201	15.201		
5%	15.201	15.201		
10%	15.374	15.201	Obs	30
25%	16.267	15.547	Sum of wgt.	30
50%	17.4065		Mean	17.18023
75%	17.746	Largest	Std. Dev.	1.068049
90%	18.479	18.473		
95%	18.485	18.485	Variance	1.140729
99%	18.795	18.485	Skewness	-.5125255
		18.795	Kurtosis	2.250256

MACFE

Percentiles		Smallest		
1%	-.06	-.06		
5%	-.047	-.047		
10%	-.0415	-.044	Obs	30
25%	-.028	-.039	Sum of wgt.	30
50%	-.001		Mean	-.0043667
75%	.019	Largest	Std. Dev.	.0271121
90%	.0305	.023		
95%	.038	.038	Variance	.0007351
99%	.043	.043	Skewness	-.1858649
			Kurtosis	2.211077

MACM

Percentiles		Smallest		
1%	-.907	-.907		
5%	-.585	-.585		
10%	-.352	-.352	Obs	30
25%	-.207	-.352	Sum of wgt.	30
50%	-.029		Mean	.0114333
75%	.203	Largest	Std. Dev.	.3990836
90%	.606	.606		
95%	.758	.606	Variance	.1592677
99%	.758	.758	Skewness	.1825961
		.758	Kurtosis	2.766665

MACS

Percentiles		Smallest		
1%	-2.632	-2.632		
5%	-1.633	-1.633		
10%	-.634	-.634	Obs	30
25%	-.373	-.634	Sum of wgt.	30
50%	-.051		Mean	.0076
75%	.365	Largest	Std. Dev.	.9096637
90%	1.364	1.364		
95%	1.364	1.364	Variance	.8274881
99%	1.364	1.364	Skewness	-.4210514
			Kurtosis	4.009199

. pwcorr dacc acfe acm acs acg fs macfe macm macs, star (0.05) sig

	dacc	acfe	acm	acs	acg	fs	macfe
dacc	1.0000						
acfe	-0.5984*	1.0000					
		0.0005					
acm	-0.4680*	0.3928*	1.0000				
		0.0091	0.0318				
acs	-0.0874	0.2974	-0.0838	1.0000			
		0.6462	0.1105	0.6596			
acg	0.3752*	-0.2166	0.1435	0.0817	1.0000		
		0.0410	0.2502	0.4493	0.6676		
fs	-0.0122	-0.1411	0.0101	-0.0631	0.1159	1.0000	
		0.9488	0.4572	0.9579	0.7404	0.5418	
macfe	0.5880*	-0.4189*	0.0043	0.0782	0.8536*	0.2460	1.0000
		0.0006	0.0212	0.9820	0.6811	0.0000	0.1901
macm	0.5189*	-0.2874	0.0035	0.1094	0.9496*	0.1430	0.9314*
		0.0033	0.1236	0.9852	0.5650	0.0000	0.4511
macs	0.3712*	-0.2089	0.1458	0.0723	0.9997*	0.1105	0.8466*
		0.0434	0.2679	0.4422	0.7043	0.0000	0.5610

. xtset id year
panel variable: id (strongly balanced)
time variable: year, 2012 to 2017
delta: 1 unit

. reg dacc acfe acm acs acg fs

Source	SS	df	MS			
Model	.008373295	5	.001674659	Number of obs =	30	
Residual	.007090571	24	.00029544	F(5, 24) =	5.67	
Total	.015463866	29	.000533237	Prob > F =	0.0014	
				R-squared =	0.5415	
				Adj R-squared =	0.4459	
				Root MSE =	.01719	

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
dacc						
acfe	-.0415935	.019344	-2.15	0.042	-.0815175	-.0016696
acm	-.0106305	.0045805	-2.32	0.029	-.0200841	-.0011768
acs	-.0010506	.0036252	-0.29	0.774	-.0085326	.0064314
acg	.0827085	.0342501	2.41	0.024	.0120197	.1533972
fs	-.0022953	.0030353	-0.76	0.457	-.0085598	.0039693
_cons	.1138928	.0637872	1.79	0.087	-.0177574	.2455431

. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance
Variables: fitted values of dacc

chi2(1) = 0.64
Prob > chi2 = 0.4244

. vif

Variable	VIF	1/VIF
acfe	1.58	0.632882
acm	1.38	0.727099
acs	1.22	0.818480
acg	1.19	0.839924
fs	1.03	0.969364
Mean VIF	1.28	

. reg dacc acfe acm acs acg fs macfe macm macs

Source	SS	df	MS			
Model	.228543112	8	.028567889	Number of obs =	30	
Residual	.004960585	21	.000236218	F(8, 21) =	120.94	
Total	.233503697	29	.008051852	Prob > F =	0.0000	
				R-squared =	0.9788	
				Adj R-squared =	0.9707	
				Root MSE =	.01537	

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
dacc						
acfe	-.0363832	.0167245	-2.18	0.041	-.0711636	-.0016027
acm	-.0013768	.0005578	-2.47	0.022	-.0025368	-.0002168
acs	-.0072307	.0029089	-2.49	0.021	-.01328	-.0011814
acg	-.3329174	.1035206	-3.22	0.004	-.5482004	-.1176345
fs	-.0085932	.0017217	-4.99	0.000	-.0121737	-.0050127
macfe	-.2840143	.0667629	-4.25	0.000	-.4228554	-.1451732
macm	.1489482	.0342787	4.35	0.000	.0776618	.2202346
macs	-.0005611	.0001638	-3.43	0.003	-.0009018	-.0002205
_cons	.3539584	.0296211	11.95	0.000	.2923579	.4155588

. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance
Variables: fitted values of dacc

chi2(1) = 0.00
Prob > chi2 = 0.9797